ARMOR AT WAR SERIES

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TANK BATTLES OF THE MID-EAST WARS

(1) THE WARS OF 1948-1973

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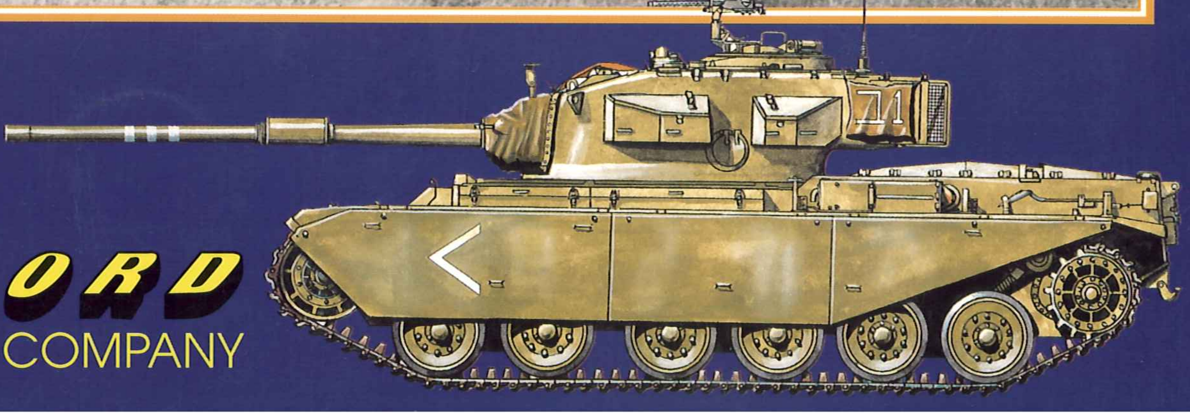

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Introduction

Since the Second World War, the Mid East has been the region that has seen the most extensive conflicts involving armored forces. Indeed, the Arab-Israeli wars have sometimes involved tank battles on a scale that rivaled the colossal encounters at El Alamein or Kursk in World War II. The reasons are both geographic and historic. Desert terrain such as the Sinai has favored mechanized warfare. In addition, the local conflicts in the region became entangled with broader world political developments. The 1948 and 1956 wars in the region were linked to the drives for decolonialization in the developing world; the 1967 and 1973 wars were enmeshed in Cold War tensions. These links to broader global conflicts have meant that the armies in the region have had access to the arsenals of the Great Powers, acting as their surrogates in some cases.

The tragic roots of the conflict in the region are not difficult to trace. A revived Jewish presence in Palestine was the outcome of the horrors of the Holocaust in Europe. The Arab countries in the region, trying to escape colonial bondage with Britain and France, regarded the Jewish presence as another case of illegitimate European interference in the region. The animosities spawned in the first war in 1948 provided the bitter seed for four decades of war in the region.

The 1948 War for Palestine

In May 1948, Britain extricated itself from Palestine after having partitioned the country between its Jewish and Arab inhabitants. The partition plan satisfied no one, and resulted in open warfare between the new state of Israel and the regular armies of the Arab League. None of the countries in the region were well armed by World War II standards, and the European powers attempted to place an arms embargo on the region until tempers cooled.

The Israeli Defense Force grew out of several political militias that had been formed in the mid-1940s to protect Jewish settlements. These forces had immediately appreciated the utility of armored vehicles to transport personnel and supplies along hostile roads. Due to the arms embargo, normal armored vehicles were unobtainable, but improvised armored trucks soon became an important ingredient in Jewish military units. The Arab League invasion of 14 May 1948 pitted the combined weight of several regular armies of the neighboring Arab states against the Jewish militia groups. The Egyptian Army attacked from its bases in the Gaza strip, supported by Mk. VIB light tanks, Matilda infantry tanks, and armored cars, and fought its way up along the coast. The most serious threat was posed by the Arab Legion, which struck westward towards Jerusalem and nearly divided Israel in half. The Arab Legion was the most professional of the Arab forces, and was amply supplied with armored cars and heavy weapons. Syrian forces, supported by Renault 35.R infantry tanks, struck from the north, and overran several Jewish agricultural settlements below the Golan Heights. During the opening phase of the war, the Arab forces had a clear advantage in tanks and armored vehicles, which they used with some success.

The United Nations sponsored a cease-fire on 11 June which was welcomed by both sides which were exhausted by the fighting. Israel had come very near to being overwhelmed, but the piecemeal attacks by the separate Arab armies lacked any central coordination. Many of the initial Arab successes were due to Israel's lack of heavy weapons to deal with Arab tanks. The Israelis used the lull to reorganize their militia forces, now unified as the *Zvah Haganah Le Israel* (Zahal): the Israeli Defence Force (IDF). By combing through old junkyards in Europe and Asia, Israel was able to cobble together a small armored force based mainly around half-tracks, various types of armored cars, and a handful of tanks. Two mechanized units were formed. The 7th Mechanized Brigade was equipped mainly with half-tracks and trucks and first saw fighting against the Arab Legion at Latrun. The 8th Armored Brigade consisted of the 82nd Tank Battalion and the 88th Mechanized Battalion, a jeep commando unit led by the young Moshe Dayan.

When the fighting resumed on 9 July, the IDF began a ten-day counter-offensive that saw the first extensive use of their small armored forces. The Arab Legion was finally halted. Relations between the Arab League countries were acrimonious and King Abdullah of the Transjordan ordered the Arab Legion over to the defensive due to suspicions about Egyptian intentions. What little co-operation that had existed between the Arab armies ended and the most serious threat to the heart of Israel posed by the highly professional Arab Legion no longer existed. The Egyptian Army now constituted the greatest threat. Its armored strength in Palestine amounted to 3 Shermans, 132 light tanks, and 139 Universal Carriers.

After another truce that ended in October, the Israeli Defense Force swung over to the offensive in the south while holding defensive positions against the Syrians and the quiescent Arab Legion. The 7th and 8th Brigades were shifted to the Southern Command facing the Egyptians. The Egyptians were decisively defeated, more by the mobile half-track infantry than by the small and poorly trained tank force. The final IDF attacks in December and March 1949 pushed the Israeli frontier to Eilat on the Gulf of Aqaba. The UN sponsored yet another truce, and by this time, the IDF controlled most of what has become modern Israel.

The 1949 truce held for nearly a decade. There were recriminations between the Arab armies that took part in the war, a wave of *coups d'etat* rocked Syria, the king was overthrown in Egypt leading to Nasser's rise to power, and young King Hussein assumed the throne of the new Hashemite Kingdom of Jordan. The Arab League subsidized Palestinian terrorist raids in Israel's border areas, inevitably followed by Israeli reprisals. The great powers adopted a common policy of restricting heavy weapons purchases in the region, especially tanks. A commission was established by Britain, France and the United States to regulate arms sales.

In assessing its performance in the war, the IDF was not impressed by its small tank force, but its mechanized infantry had been vital. IDF doctrine in the early 1950s was conservative and placed the emphasis on the infantry. Although a bold tank attack by the 7th Armored

Brigade during the 1952 IDF maneuvers was censured, it was repeated anyway in 1953. Present was Prime Minister Ben Gurion, and the sight of infantrymen fleeing before the Shermans convinced him that more tanks had to be acquired from Israel's meager defense budget. Two factors greatly assisted him in his plans. It so happened that the French government was furious over Egyptian support for guerrillas fighting against French forces in Algeria. As a result, France decided to encourage Israel militarily, beginning a fruitful military relationship that lasted until 1967. The second factor was growing Soviet involvement in the region, especially in Egypt.

Britain helped in the re-equipment of the Egyptian Army after the 1948 war. However, the arms restrictions imposed by the British and France, as well lingering resentment towards the former colonial powers led Nasser to turn to the Soviet Union for military supplies. In 1953, he arranged a major arms deal with Czechoslovakia, sponsored by the Soviet Union. This included 230 tanks, mostly T-34-85 but also including some T-54As and IS-3 Stalins; 200 BTR-152 armored troop carriers; and 100 SU-100 self-propelled guns. The sudden influx of heavy weapons weakened the resolve of France and Britain to constrain their own arms sales in the region. The French sold the Israelis 100 AMX-13s, 150 M3 half-tracks, 60 *Obusier automoteur de 105 Modele 50* (self-propelled 105mm howitzers on an AMX-13 chassis), and 60 Sherman tanks, bringing Israeli tank strength to about 200 vehicles. This permitted the formation of two reserve armored brigades, the 27th and 37th.

The worsening relations between Egypt, Britain and France precipitated the next war. Nasser's prize project was the creation of a large hydro-electric dam at Aswan, which he hoped to finance with foreign loans. The 1953 arms deal prompted the US and Britain to withdraw from the project, and France refused to help due to Nasser's support for the Algerian insurgency. Nasser decided to nationalize the Suez Canal, controlled jointly by Britain and France, to help pay for the dam. The French were displeased with Nasser for his meddling in the touchy Algerian crisis, and the Suez affair was the last straw.

The 1956 War

In August 1956 an Anglo-French military commission began to lay plans for a seizure of the canal coded Operation 'Hamilcar', later re-named 'Musketeer'. At the same time, Israel was becoming alarmed over Egyptian-sponsored raids from the Gaza Strip. An Israeli raid into the Sinai would provide Britain and France with pretext to land at the Suez Canal. The plan called for Israel to launch its operation on 29 October, followed by air strikes on Egyptian airfields on 31 October, and finally an Anglo-French landing at Port Said on 5 November.

To bolster their army, Israel received a further 100 up-gunned Shermans and 200 half-tracks, which arrived from France near Haifa in July 1956. These M50 Super-Shermans were designed to deal with the Egyptian's new T-34-85s. The conversion by the Atelier de Bourges in France included a VO1000 75mm high-velocity gun like that used in the AMX-13, a new gun mantlet and a rear turret counterweight extension. A tank battalion of the 37th Armored Brigade was the only Israeli unit to be re-equipped with this new type for the 1956 fighting.

The Israeli plan was dubbed Operation 'Kadesh'. The attacks began with parachute landings against the key Mitla Pass in the Sinai, followed by mechanized attacks against Egyptian garrisons in the Gaza Strip and the Sinai. The Egyptian garrisons resisted in a determined fashion, but after Anglo-French air attacks began on 1 November, Nasser ordered the army to retreat. The results were disastrous for the Egyptian Army. The final stage of the campaign consisted of a race by Israel forces fighting occasional rearguard actions against Egyptian armored units. During Operation 'Kadesh' the Israelis knocked out or captured 26 T-34-85s, one T-34 command tank, six SU-100s, 40 Sherman Mk 3s, 12 M4/FL10s, 15 Valentines, 40 Archers, 60 BTR-152s, three Sherman ARVs, three Sherman dozers and 283 Bren carriers. Total Israeli casualties had been 172 killed, 817 wounded and about 30 tanks and half-tracks knocked out in combat.

The Anglo-French landings began on 5 November. The invasion force was amply provided with tanks as it was feared that Egyptian tanks manned by Russian or Egyptian crews would resist the landings. The 6th Royal Tank Regiment with Centurions disembarked on 6 November, while the French 8^{e} Dragons with M47 Pattons and AMX-13s landed as part of the 7^{e} Division Mechanique Rapide. An AMX-13 squadron from the 2^{e} REC (2nd Foreign Cavalry) supported French Foreign Legion units. The only Egyptian armor encountered in combat were four SU-100s detached from the 53rd Artillery Battery of the 1st Armored Brigade Team then fighting the Israelis in Sinai. They were knocked out by British paratroopers on 5 November.

The 1956 war ended amidst international political furor. The transparent collusion of the British, French and Israelis was condemned by the United States, which forced an Allied withdrawal. It was seen by the Arab world as the last gasp of French and British colonial power in the region, and the Arab states turned increasingly to the Soviet Union for military support. Jordan was the one exception. In 1956, the British officers attached to the Arab Legion were ordered out of Jordan at short notice, and the Legion became the Jordan Arab Army. However, Jordan turned to the United States as its military mentor rather than the USSR. In the early 1960s began receiving M47 and M48 Patton tanks for two of its armored brigades, and Centurions from the UK for a third brigade.

The war had a significant impact on Israeli military doctrine, reversing the priorities in the combat arms. The rapid advances of the 1956 campaign in the Sinai convinced the IDF of the need to modernize the tank force, and this became the primary arm of the ground forces. The IDF began to organize larger tactical formations called *Ugdat* (divisional task forces), which would consist of a mixture of armored brigades with mechanized or infantry brigades. These new tactics led to an increase in the number of IDF tank brigades from three to nine between 1956 and 1967.

The 1956 war also removed the last impediments to Israeli arms purchases in Europe. Egypt's purchase of Soviet T-54A tanks forced the IDF to look for more modern battle tanks. France had been Israel's main arms supplier up to 1956, but lacking its own main battle tank, Israel turned to Britain to begin buying Centurions. The second new tank to be adopted was the American M48 Patton. The USA refused to sell weapons to Israel directly, but as a sideline to the reparations agreements between Israel and the Federal Republic of Germany the USA secretly agreed to the transfer of Pattons from the Bundeswehr to the IDF. These transfers lasted from 1960 to 1964, totaling about 40 tanks before press leaks put a stop to the shipments. The USA agreed to continue direct arms shipments to Israel on a limited basis, but it would become Israel's primary source of arms after the 1967 war.

The 1956 war put Egypt solidly in the Soviet camp, and large quantities of military aid were purchased. The first shipment of 120 Czech-built T-34-85s arrived in 1956 and were used to rebuild the 4th Armored Div., routed in the Sinai campaign. In 1962-63 more T-34-85s were received, along with another 130 T-54As. A third major order in 1965-67 added another 160 T-34s and T-55s, plus 25 IS-3M Stalins and 50 amphibious PT-76s.

France remained Syria's primary military sponsor and in 1949-51 supplied about 40 reconditioned German armored vehicles including PzKpfw IV Ausf.Hs, and StuG IIIs and Panzerjager IVs supplemented later by more PzKpfw IV purchases from Czechoslovakia, and Spain. A series of *coups d'etat* pushed Syria away from France and towards the Soviet Union. In the early 1960s the USSR began supplying Syria with T-34-85s. Together with some of the Panzer IVs, Syrian tanks were involved in the 'Water War' with Israel along the Golan heights beginning in November 1964. The Syrian tanks were easily outgunned by the new Israeli Centurions with 105mm guns, so the Soviets consented to supply more modern weapons. As the first shipments of T-54As began to arrive, the Syrian 14th and 44th Armored Brigades were formed. By the time of the 1967 war Syria had about 750 tanks and 585 APCs.

The 1967 War

Egypt's reckless foreign policy and saber rattling led Israel to prepare a pre-emptive war against its neighbors in 1967. The focus was to eliminate the main threat, Egypt, by eliminating its Sinai garrison, and then to turn against Syria to exact retribution for border incidents over the past decade. The original plan did not include operations against Jordan, but King Hussein was later drawn into the conflict. The Israeli plan stretched the capabilities of IDF mobile forces to the limit. Their success depended on the perennial lack of co-ordination among the Arab armies, and the usual skill of the IDF troops.

The majority of the IDF units facing Sinai in 1967 were armored or mechanized, symptomatic of the shift in IDF tactical doctrine. The typical Israeli armored brigade was built around two tank battalions, usually with about 50 tanks apiece, supported by at least one battalion of half-track infantry. The armored brigades were formed into *ugdat* along with mechanized or infantry brigades; these *ugdat* varied in composition. During the 1967 war there were four of them: three in the Sinai, and one in Jordan and, later, Syria.

The Israelis launched the war on 5 June 1967 with a series of spectacularly successful air strikes on Arab airfields, which gave the Israeli Air Force almost complete air supremacy during the subsequent fighting. Nearly three quarters of the IDF's tank force was aimed at driving the Egyptians out of the Sinai. In total, the Egyptian forces in the Sinai had at their disposal about 930 tanks when war broke out. Although there were some intense tank battles at the opening phase of the Sinai fighting, the Egyptian forces proved to be unprepared for the war. On the morning of 6 June Gen. Amer, the Egyptian commander-in-chief, sent telegrams to his divisional and brigade commanders ordering them to withdraw to the Suez Canal. It was a fatal decision, and all the more surprising in view of the disastrous effects of an identical order in 1956. Some Egyptian officers convinced themselves that the Israelis could not have carried out their devastating air strikes without American collusion, and feared that another seaborne assault on the Canal might be in the offing. Equally troubling was the speed with which key Sinai defences had fallen. No plans were sent out for a fighting withdrawal; it was to be a straightforward flight in the face of the enemy. By the time saner counsels prevailed on Amer to rescind the order the damage had been done; the Egyptian Army was in headlong retreat towards the Canal, and resistance crumbled.

By mid-day on 9 June the three IDF *Ugdat* had all linked up along the Suez Canal. A United Nations cease-fire came into effect that evening. In their drive through the Sinai, the Israelis had lost 122 tanks; while this was fairly modest in view of the magnitude of the victory, the severe losses among tank and unit commanders were serious for an army the size of IDF. Egyptian losses were catastrophic. Of the 935 tanks in the Sinai at the beginning of hostilities Egypt had lost more than 820: 291 T-54As, 82 T-55s, 251 T-34-85s, 72 IS-3M Stalins, 51 SU-100s, 29 PT-76s, and around 50 Shermans and M4/FL10s. Losses in APCs and other types of armored vehicle had been equally severe.

The Jordanian front erupted on 5 June. Initial Israeli thrusts were conducted by infantry and paratroopers with very modest armored support: two Sherman battalions were assigned to support infantry operations in Jerusalem, while the 10th Harel Mechanized Brigade operations north of the city were supported by a mixed battalion of M50 Super Shermans and 20 pdr. Centurions, and a battalion of AMX-13s. Jordanian infantry contested these advances with characteristic stubbornness. Patton tanks of the Jordanian 60th Armored Brigade attacked Israeli forces on the Ramallah-Jerusalem road, but lost many tanks to Israeli air strikes. By the time it fought its way out the following day the 60th Brigade had only six tanks left.

The IDF attack was reinforced by an assault by Ugdat Peled, composed of one infantry and two armored brigades. The ensuing tank fighting between Israeli and Jordanian armor was the most intense of the war, and the only front on which the Israelis were confronted by a nearly equal foe in terms of training and determination. During the fighting the Jordanians lost most of their two Patton brigades totaling some 179 tanks as well as many M113s; but they had cost the Israelis 112 tanks knocked out, both by tank fire and anti-tank recoilless rifles.

Apart from artillery duels and small-scale skirmishes, he Syrian front was quiet for the first days of the war. After he stunning defeats in the Sinai and on the West Bank, yria would have been agreeable to a ceasefire. But srael was determined to put a stop to the Syrians' artillery harassment of northern towns from the commanding positions on the Golan Heights. By 9 June, three armored brigades plus some independent battalions had been hifted to the Syrian front. The Syrian armored force consisted of the 14th and 44th Armored Brigades, with everal additional battalions of Panzer IVs, T-34-85s and T-54As attached to Syrian infantry formations in the area, and some SU-100s of the anti-tank companies. Many of hese tanks and assault guns were well dug-in with only heir turrets exposed.

The initial assault at mid-day on 9 June was pearheaded by Mendler's Armored Brigade preceded by bulldozers. The mountain slopes up the Golan Heights were an awesome natural barrier, and the Syrians had ortified them with minefields and emplaced anti-tank guns. The tank dozers and Mendler's Centurion battalion ook heavy casualties as they fought their way up the lopes, but finally the crest was reached. On 10 June, the Syrian General Staff decided that it was futile to try to contest the advance further, since Israel had already overcome the most serious defenses: they therefore tried to obtain a cease-fire agreement at the United Nations. The IDF made sure that its forces were in firm control of the key town of Kuneitra before agreeing to a cease-fire. Although there were no large-scale tank-vs-tank clashes on the Golan Heights to compare with those in Sinai, Zahal lost more tanks there in two days of fighting than in either of the other two theaters. The advance up the difficult mountain tracks had cost about 160 tanks, or nearly a third of those committed. In contrast, Syria lost 73 T-34-85s, PzKpfw IVs and T-54As; seven SU-100s and a few StuG IIIs.

The 1973 War: The Sinai Front

The Six-Day War was the Israeli Defense Force's most stunning victory. The vital role played by the Armored Corps assured it of a central place in post-war planning. But the spectacular victories in the Sinai led to a tendency to underrate mechanized infantry and artillery and to place too much confidence in all-armor formations. This would prove to be its Achilles heel in the war that followed.

Egypt was the big loser of the 1967 war, with Israel in control of the entire Sinai up to the edge of the Suez Canal. The Soviet Union proved to be willing to subsidize the re-equipment of the Egyptian Army by providing soft credit for new purchases. The Soviet Army also began an extensive training program, considerably increasing the professionalism of the Egyptian officer force. Soviet aid allowed the complete re-equipment of the gutted 4th Armored Div., the formation of a new armored division, and full-scale mechanization of several infantry divisions. Egypt received 1,260 T-54As and T-55s between 1967 and 1973, and 400 T-62s between 1971 and 1973. New troop carriers comprised 750 BTR-50s, OT-62s and 150 BMPs. The Soviet General Staff collaborated with their Egyptian counterparts in developing novel plans to retake the Sinai from Israel. The Egyptian Army acquired a wide range of specialized bridging and amphibious vehicles suitable for a large-scale crossing of the Suez Canal; among these were several companies of GSP tracked ferries, used to transport tanks across waterways.

The Soviets also appreciated that the imbalance in the IDF's force structure could be exploited by enhancing the anti-tank capabilities of Egyptian infantry. Few weapons had so much impact on the tank battles in 1973 as the anti-tank weapons supplied to the Arabs. The simplest of these was the unguided, shoulder-launched RPG-7, which was lavishly issued to infantry assault teams. More novel was the small, man-portable Malyutka wire-guided missile (NATO: AT-3 Sagger). This type of weapon was not new to the Middle East. The Israelis had the similar French SS-11 in use in 1967, but did not care for it; and the Egyptians had an earlier version, the Soviet 3M6 Shmel (AT-1 Snapper) in service in 1967 mounted on UAZ-69 jeeps, called the 2P26 Baby Carriage. Neither type had any impact on the fighting of 1967. The difference in 1973 lay in the quantity available and the training of the crews.

The final improvement in the Egyptian armed forces was the extensive air defense network set up on the west bank of the Suez Canal. This consisted of strategic air defense missile systems such as the S-75 (SA-2 Guideline) and S-125 (SA-3 Goa) as well as mobile systems such as the manportable Strela 2M (SA-7), the medium range Kvadrat (SA-6 Gainful) and radar-directed air defense gun vehicles such as the ZSU-23-4 Shilka. The aim of these systems was to provide a missile umbrella to prevent the Israeli Air Force from intervening in the ground conflict.

By autumn 1972, Anwar Sadat of Egypt was convinced that the only way to break the unfavorable diplomatic stalemate was to launch another war against Israel. The aim of the war would be to recover the whole Sinai, but Egypt cherished no illusions about the difficulty of achieving this against the formidable IDF. But even a sizable foothold east of the Canal was considered worth the cost. It took little to win over Syria to the plan. Major deception plans were put into effect to camouflage the build-up of forces on the Golan Heights and the Suez Canal. The date picked was 6 October 1973 since the IDF would be disrupted by the Yom Kippur religious holiday, and might be expected to assume that the Arab forces would likewise be distracted by the Ramadan religious festival. The attack was set for Saturday afternoon, 6 October 1973, when Israeli soldiers on the Golan would have to fight with the sun in their eyes, and when nightfall would give the Egyptians long hours of respite to throw their bridges over the Canal before the Israeli Air Force could interfere.

The Egyptians struck on schedule and implemented a brilliantly conceived and executed crossing of the Suez Canal. The fortifications of the Israeli Bar Lev line were submerged in artillery fire, and the Israeli Air Force was kept away by a thick protective belt of SAMs. Amphibious assault teams crossed in OT-62s and BTR-50s followed by more infantry as soon as pontoon bridges were erected. The first units to be rushed forward were the tank-hunter squads, who set up their Malyutka missiles along approaches that Israeli tanks would be likely to use to relieve their besieged fortifications. The first major armor encounter occurred when PT-76 amphibious tanks and BTR-50 troop carriers of the 130th Marine Brigade made a failed attempt to storm the entrances to the Mitla and Gidi Passes. The Egyptians began pushing heavier tanks over the waterway by using the GSP tracked ferries.

At the time of the Egyptian assault the major Israeli armored formation in the forward portion of the Sinai was Gen. Albert Mendler's 252nd Armored Ugdat. The bold tactics that had been so successful in 1967 proved to be the undoing of Mendler's brigades in 1973. Tank charges, accompanied by inadequate infantry support, stumbled into concealed Egyptian infantry positions rich in RPG-7 teams and Malyutka missile launchers. After having suffered dreadfully high losses among tank commanders in 1967, Israeli tankers were encouraged to fight 'buttoned up' and so could not easily see the Egyptian anti-tank squads. The Israeli tanks were thrown back with stiff losses. By the afternoon of Sunday 7 October the 252nd Armored Ugda had been reduced from about 300 to about 100 tanks. By this time the Egyptians had brought across five infantry divisions with their supporting tanks and vehicles, with elements of two armored divisions and a mechanized infantry division to follow. The Egyptian 2nd Army stretched from the northern banks of the Great Bitter Lake to the Mediterranean, and the 3rd Army stretched from the southern banks to Suez City.

On 7 October the Israelis brought forward two more *Ugdat*, the 162nd Reserve Armored Ugdat commanded by Gen. Avraham 'Bren' Adan, and the 143rd Reserve Armored Ugdat commanded by Gen. Arik Sharon. The battered 252nd Ugdat was reorganized and stationed in the south opposite the Egyptian 3rd Army to stop any attacks toward the key Gidi and Mitla Passes. Sharon's command was stationed in the center opposite the Great Bitter Lake, while Adan's covered the northern area of the Sinai opposite the Egyptian 2nd Army. Israeli tank attacks on 8 October were bloodily repulsed and by the end of the day, Adan's 162nd Ugdat was down to only about 120 tanks. In combination with the growing losses of Israeli aircraft in the Egyptian SAM belt, it was a very grim day for the IDF. The Israeli forces took to the defensive to lick their wounds and to await an anticipated Egyptian offensive. The hope was that the Egyptian attack would burst out from under the protective SAM umbrella, making the Egyptians vulnerable to air attack again.

The Egyptian attack came on 14 October, with three main armored punches emanating from 3rd Army positions and three more thrusts from 2nd Army. The Egyptian mechanized columns quickly shed their infantry support and faced the Israelis in a classic tank-vs-tank duel, where the Israelis had a decided edge both in gunnery training and in equipment. By nightfall the Egyptians had lost 260 tanks and 200 other armored vehicles, while the Israelis had lost only about 40 tanks. This battle was the largest tank-vs-tank confrontation since the Second World War.

In spite of the very precarious containment of the Egyptian forces, IDF leaders, and in particular Gen. Sharon, were itching to snatch the strategic initiative and put a task force on the west bank of the Suez to raise hell in the Egyptian rear areas. The most suitable location was at Deversoir at the northern end of the Great Bitter Lake where there was a major break between the Egyptian 2nd and 3rd Armies. The main stumbling block to the operation was the heavy concentration of Egyptian forces around the Chinese Farm, a large experimental agricultural station defended by the Egyptian 21st Armored Div. and the 16th Inf. Div. In the early morning hours of 16 October, Sharon's units managed to push a pontoon bridge across the canal unnoticed by the Egyptians. A small contingent of paratroopers with a few tanks were sent across. In the meantime, Sharon's tank units had been fighting a vicious all-night tank battle in an attempt to obtain a secure passage route at the key crossroads south of the Chinese Farm. Sharon's units lost about 70 and the Egyptians about 150 tanks in this action.

The IDF ordered Adan's 162nd Ugdat to join in the attempt and on the afternoon of 16 October, the Egyptian 2nd Army launched a major counter-attack by two tank brigades on the contested crossroads which lasted into the early morning hours of 17 October. Within this small battlefield, 20 kilometers square, the Egyptians lost a further 160 tanks and the Israelis about 80. As this engagement was petering out, the neighboring Egyptian 3rd Army joined the fray by sending 96 T-62s of the 25th Armored Brigade to help. They were spotted, and two Israeli tank brigades laid a hasty ambush destroying 86 tanks for a loss of only four of their own. This marked the last major Egyptian counter-attack around the Chinese Farm, freeing the Israelis to begin to moving three armored *ugdat* across the Canal.

The first mission of the IDF forces on the west bank was to silence the Egyptian missile batteries so that the Israeli Air Force could attack the Egyptian bridgehead on the east bank. The M107 self-propelled guns struck the nearest site, and tank forays fanned out to eliminate others. Sharon's forces moved northward towards Ismalia, while Adan's 162nd Ugdat and Magen's 252nd Ugdat spread out southward to cut off the 3rd Army. The Egyptians made desperate attempts to destroy the bridges at Deversoir, and when this failed, they tried to secure a ceasefire through UN mediation. The United States and the Soviet Union became embroiled in a major political confrontation; but as the superpowers both favored a ceasefire, one was attempted on the night of 22-23 October. It quickly failed due to the confused situation on the west bank, and the Israelis made a last-ditch drive towards Suez City to completely cut off the 3rd Army. An attack into Suez City itself was bloodily repulsed, and on 24 October the second ceasefire came into effect. There were a number of outbreaks of fighting subsequent to the ceasefire before UNEF forces were able to establish a buffer zone. Through UN mediation the fragile ceasefire held intact; and in January 1974 the Israelis agreed to withdraw their forces from the west bank under UN supervision, and a UN buffer force was established.

The 1973 War: The Syrian Front

After the 1967 war, Syria became the main base for the PLO and the most vocally militant of the Arab states. The Soviet Union agreed to rebuild the Syrian Army in the grand manner; Syria received the T-62 before Moscow's Warsaw Pact satellites, and even the sophisticated new BMP infantry combat vehicle. Syria formed her new armored and mechanized infantry divisions along Soviet lines and planned an offensive on the Golan Heights patterned after Warsaw Pact offensive doctrine.

Israel was caught completely off guard by the attacks of 6 October. Nevertheless, some Israeli officers had not been fooled and elements of the veteran 7th Armored Brigade had been assigned the Golan. The defense of the 'Purple Line' along the Heights had been assigned to one infantry and one armored brigade, the 188th Barak Armored Brigade; this latter had four battalions totaling 90-100 tanks supported by 44 105mm and 155mm SP guns. The 7th had some 105 tanks, but only a part of the formation was deployed when the Syrians struck. In their favor, the Israelis had carefully laid out concealed fire positions, minefields and tank traps to channel any Syrian attack into 'killing grounds'. Nevertheless, some 200 Israeli tanks faced about 1,260 Syrian tanks and several hundred other armored vehicles in the first echelon.

The 7th Armored Brigade was scattered along the northern edge of the Purple Line from the Lebanese border to Kuneitra, enjoying the advantage of very rough terrain. The Barak Brigade defended 40km of better tank country from Kuneitra to the Jordan frontier. The Syrians struck with their three mechanized infantry divisions in the lead: the 7th, 9th and 5th Inf. Divs., respectively north to south. Behind them, ready to exploit success, were the 1st and 3rd Armored Divs. and the independent tank brigades. Each infantry division had some 200 tanks under command, which were used in the first waves.

The Syrian attacks of 6 October were held by the Israeli tankers, despite unusually intense Syrian artillery fire. The first enemy waves to reach the tank ditches were roughly thrown back; subsequent waves which breached the ditches by using tank bridge-layers and tractors were halted by local Israeli counter-attacks. In the night battles which followed the 7th Armored Brigade managed to hold on to its positions in the north; but in the south the more exposed defenses of the Barak Brigade were overrun with heavy losses. The 46th Tank Brigade of the 5th Syrian Inf. Div. broke through near Rafid, and by dawn they overlooked Israeli settlements on the Sea of Galilee.

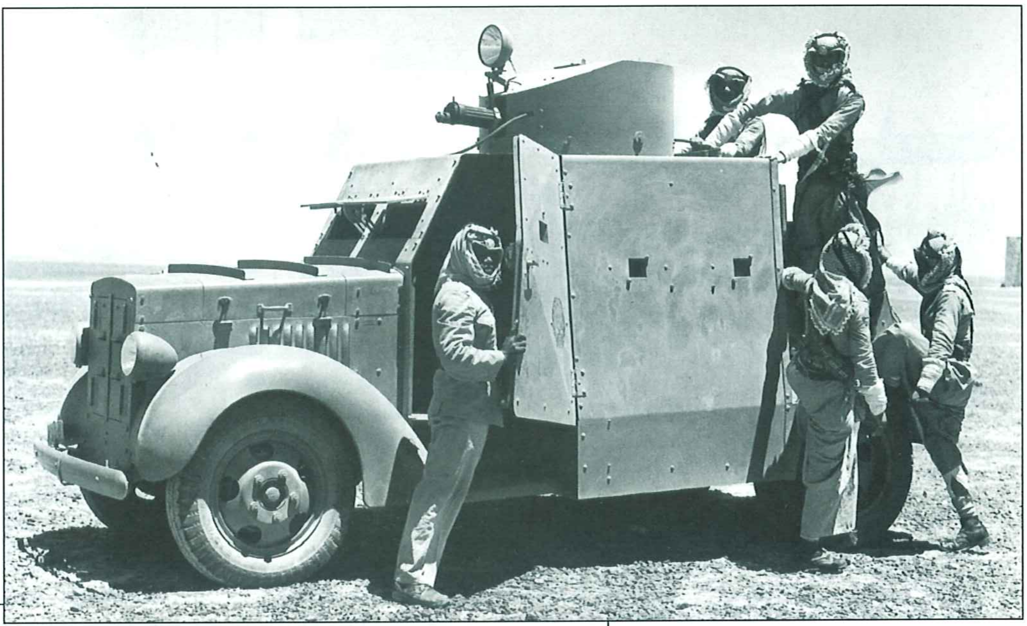
The Syrian command quickly pushed the 1st Armored Div. and 15th Mechanized Brigade into the gap. Elements of the Israeli 78th Reserve Armored Brigade were thrown into action piecemeal to link up with surviving tanks of the Barak Brigade in a desperate attempt to plug the rent torn in the Purple Line. About 20 tanks faced 600; by the afternoon of 7 October, many had been knocked out either by tank fire or by roving RPG-7 teams. Three more reserve armored brigades were rushed to the scene under command of Gen. Dan Laner, and were driven into the fray company by company as available, with little chance to form coherent units. By the night of Sunday 7 October these measures had worked; no further breakthroughs were reported and Israeli units were coalescing.

The 7th Armored Brigade clung to its positions on the slopes overlooking the 'Valley of Tears', where 130 Syrian tanks already lay burning. By the afternoon of Tuesday 9 October, the threadbare survivors of this brigade were nearly cracked apart by unrelenting assaults from the Syrian 7th Infantry Div. The handful of Israeli tanks still running had been pushed back from several key crests and were nearly out of ammunition when 13 tanks of the reconstituted Barak Brigade arrived on the scene and tore into the Syrian flank, disabling 30 tanks. In the low ground below the 7th Armored Brigade positions lay the smoldering wrecks of 260 tanks of the Syrian 7th Inf. Div. and the Assad Republican Guard. Over 200 other armored vehicles such as bridge-layers, BMPs and BRDMs also littered the valley. Of the original strength of 105 tanks, 7th Armored Brigade had seven surviving runners. As impressive as the brigade's record had been in past wars, little in their history could match their heroic four-day defense of the Purple Line north of Kuneitra.

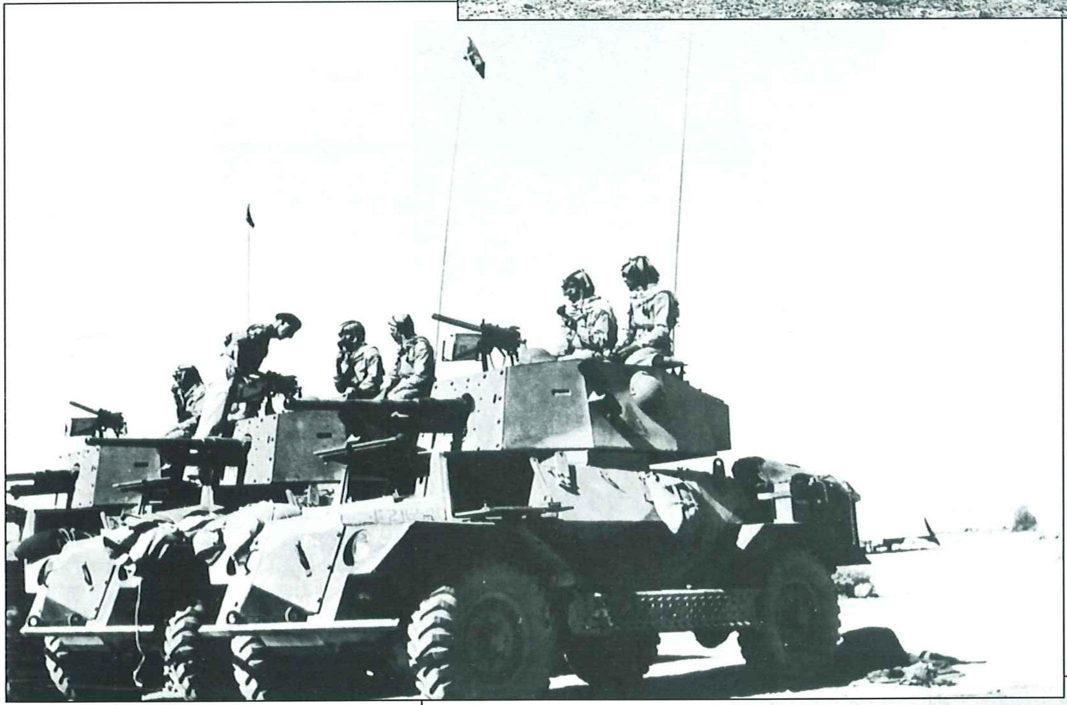
On the morning of Wednesday 10 October the Israeli counter-offensive began. The rebuilt 7th and 188th Armored Brigades moved forward north of Kuneitra, while Laner's 240th Armored Ugdat: 19th, 20th and 78th Armored Brigades—advanced in the south. Although bled white in the difficult fighting of the previous few days, the Syrians were still full of fight and put up a tenacious rearguard defense. On 12 October Laner learned of a major attack building up on his right flank. This was the Iraqi 3rd Armored Div., come to help the Syrians, with Jordan's 40th Armored Brigade not far behind. Inexplicably the Iraqis halted, giving the Israelis the time to lay a massive ambush before the attack developed the next day. Hit from both sides, the Iraqis lost 80 tanks before retreating. An uncoordinated attack on 18 October by the Iraqis and the Jordanians left 60 Iraqi and 20 Jordanian tanks burning on the field. This was the last major armored confrontation on the Syrian front.

The 1973 war, unlike the previous Middle East wars, did not end in a clear victory for either side. The Egyptian Army succeeded in Sadat's strategic objective of ending the deadlocked negotiations over the fate of the Sinai. In the process, they redeemed the image of the Egyptian Army, so badly tarnished by the humiliating routs of 1956 and 1967. Much of the credit can be claimed by the tenacious Egyptian infantrymen who so determinedly fought back the initial Israeli tank attacks, as well as the much higher level of professionalism displayed by the Egyptian military leadership. It was Sadat's diplomatic acumen which would finally win back the Sinai in the years that followed.

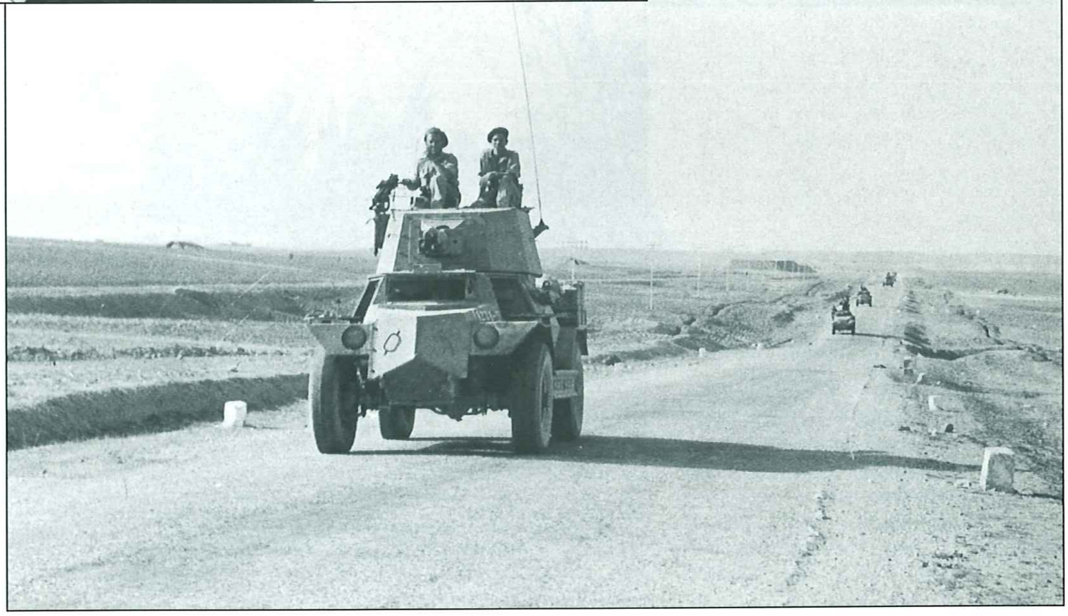
The IDF's reputation was tarnished both due to the intelligence failure that placed so much at risk in the opening phase of the war, and tactical problems that led to such heavy tank losses in the opening phase of the Sinai battles. Yet the defense of the Golan Heights remains one of the most remarkable feat of arms in the 20th Century, and Sharon's thrust across the Suez was a forceful reminder of the IDF's considerable capabilities. Overcoming the complacency which had led to the early defeats, the IDF quickly adapted to the new tactics and skillfully fought a difficult two-front war against enemy forces which heavily outnumbered it in men and equipment. The Syrian Army completely failed in its objectives. At the time this book was written, it has still not won by diplomatic acumen what it lost by force of arms.



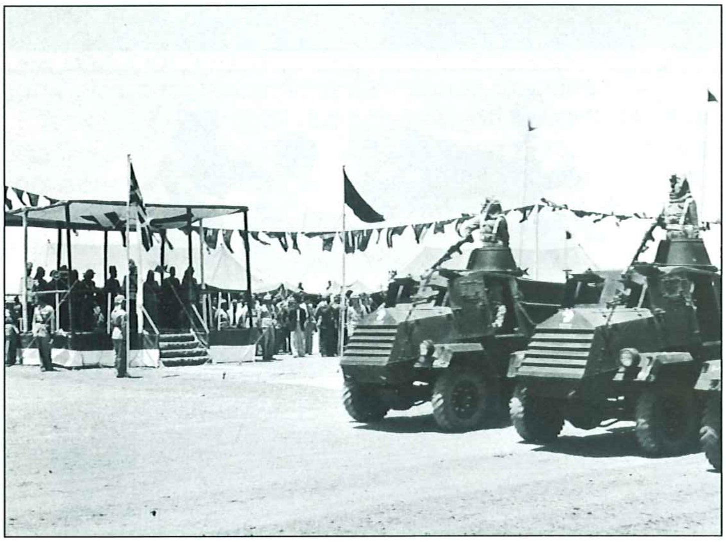
The best equipped of any force in Palestine in 1947-48 was the Arab Legion. This armored car is an old veteran of the Legion, having been ordered by Glubb Pasha in 1939 from the Wagner firm in Jaffa. These armored cars were used by the Mechanized Force in support of the British Army during operations in Syria and Iraq during World War II. This armored car is armed with a Vickers .303 machine gun. The emblem on the door is the Legion's cap badge. (Joseph Desautels)



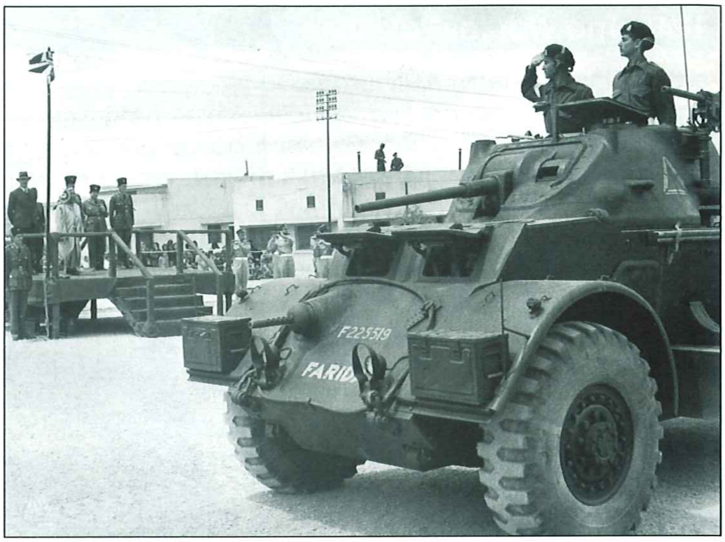
The most common armored vehicle in the region in 1948 was the South African-manufactured Marmon-Harrington Mk. IVF armored car. In the Arab Legion as seen here, each infantry battalion had an attached company of these vehicles. Following the war, the Royal Jordanian Army had 437 of these armored cars after having amalgamated the Arab Legion. (Joseph Desautels)



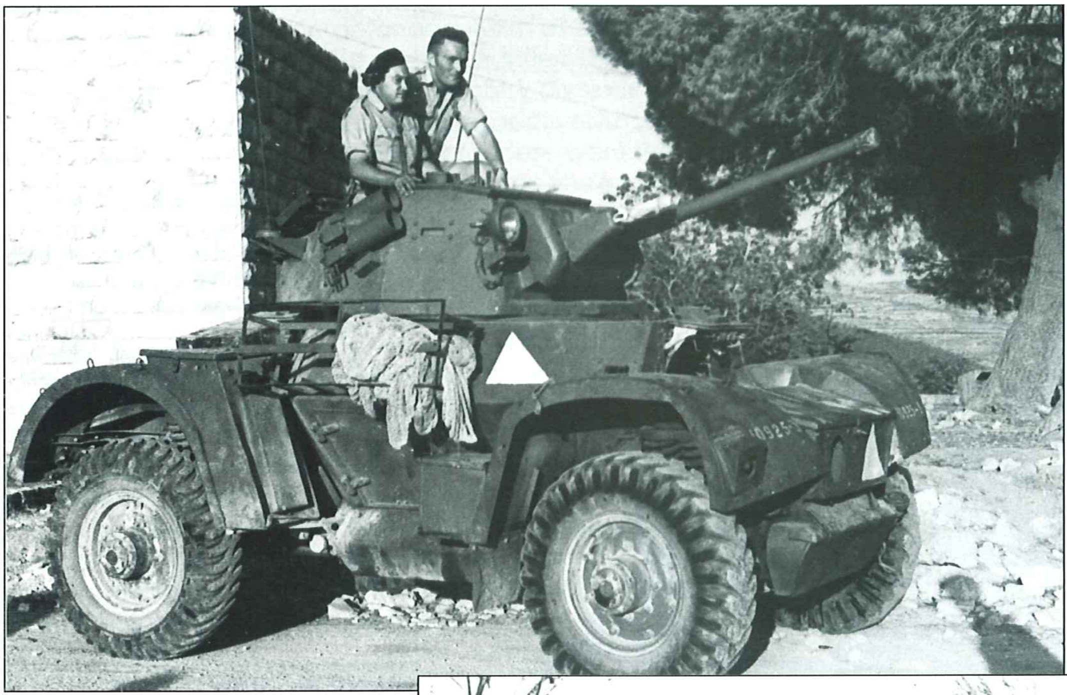
The Marmon-Harrington Mk. IVF armored cars ended up in other hands as a result of the fighting. Here, an Israeli example captured and impressed into service. It is lacking its usual 2 pdr. gun, and a French 37mm SA.38 has been substituted, possibly from a captured Syrian Renault 35.R. A Besa machine gun has also been added to the turret. (Israeli Government Press Office)



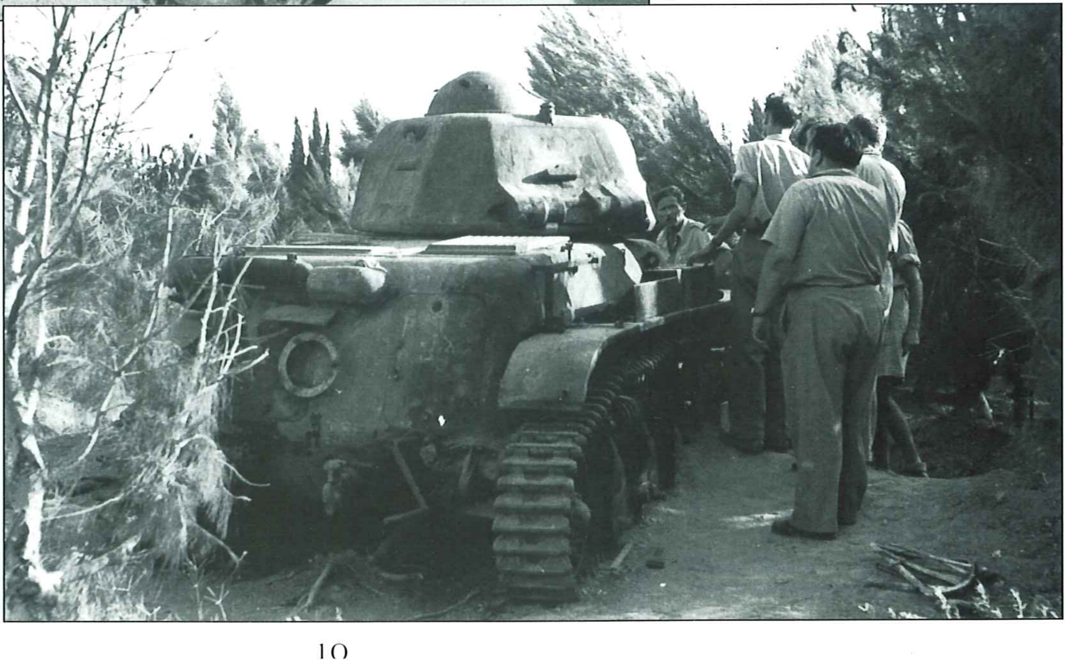
The Arab Legion employed a variety of other armored cars, mostly provided by Britain during World War II. Here, a group of Canadian-manufactured Otter 1 Light Reconnaissance Car G.M. Mk. 1 on parade. The Arab Legion's emblem, a white falcon profile on a black square, can be seen on the front of the hood. (Joseph Desautels)



Strong British influence is evident in this Staghound armored car of the Transjordanian Frontier Force passing in review in the late 1940s. The armored car uses a triangle tactical sign as was British practice, and a vehicle name, "Farida" is painted on the glacis. (Joseph Desautels)

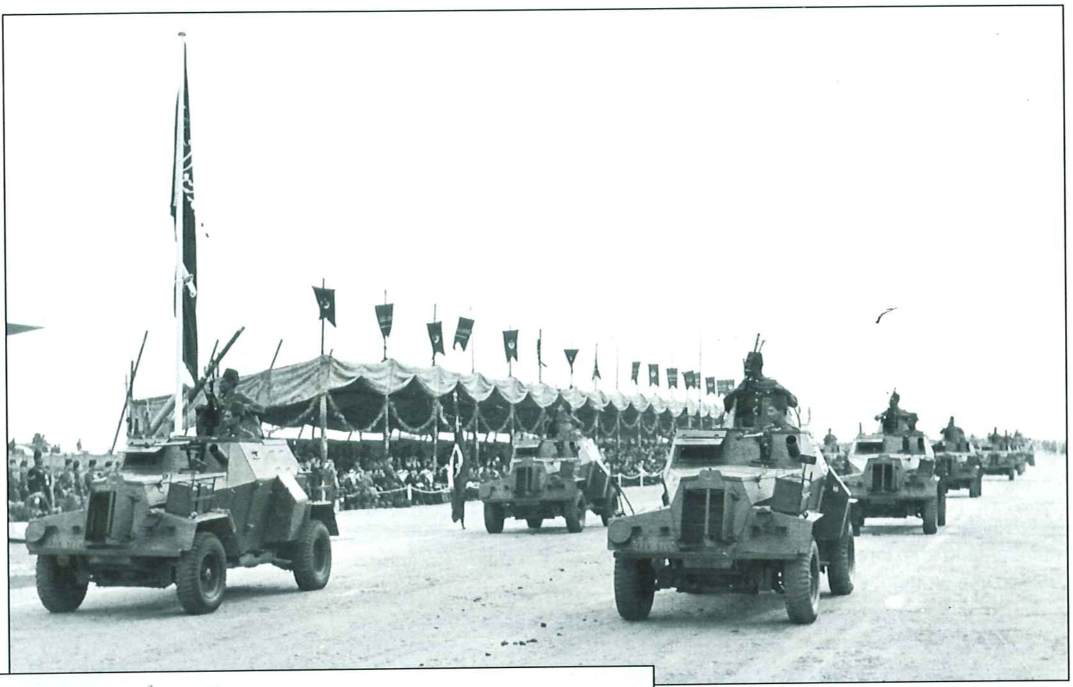


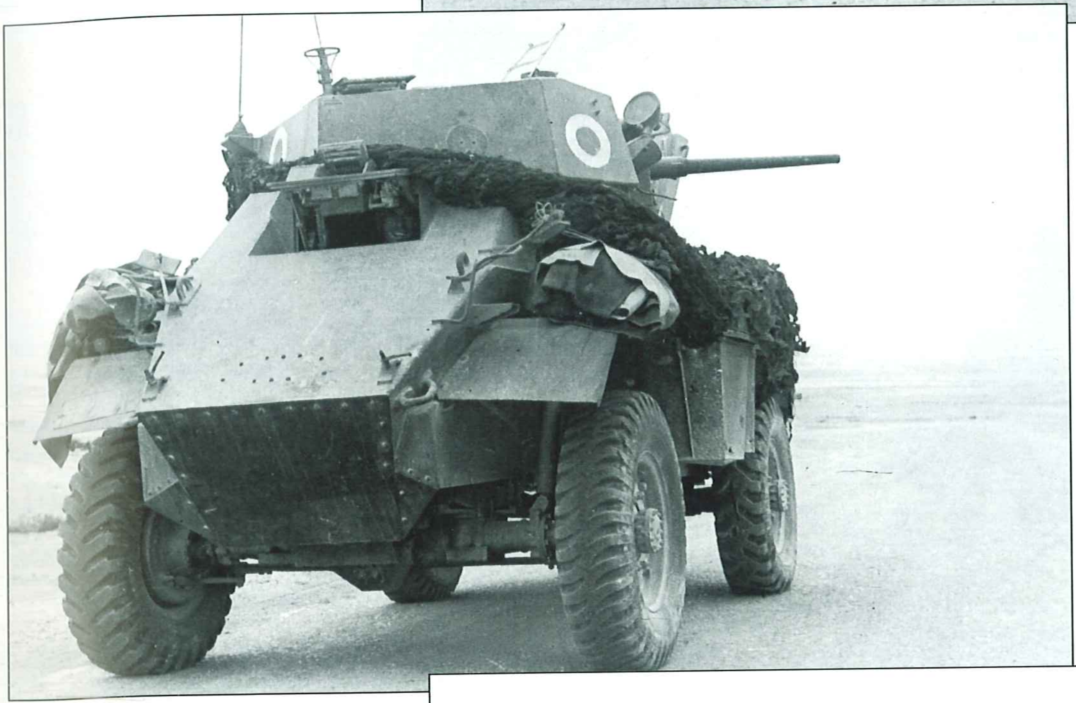
Israeli forces acquired their armored equipment from an incredible variety of sources. This Daimler armored car was formerly used by the British police in Palestine. (Israeli Government Press Office)



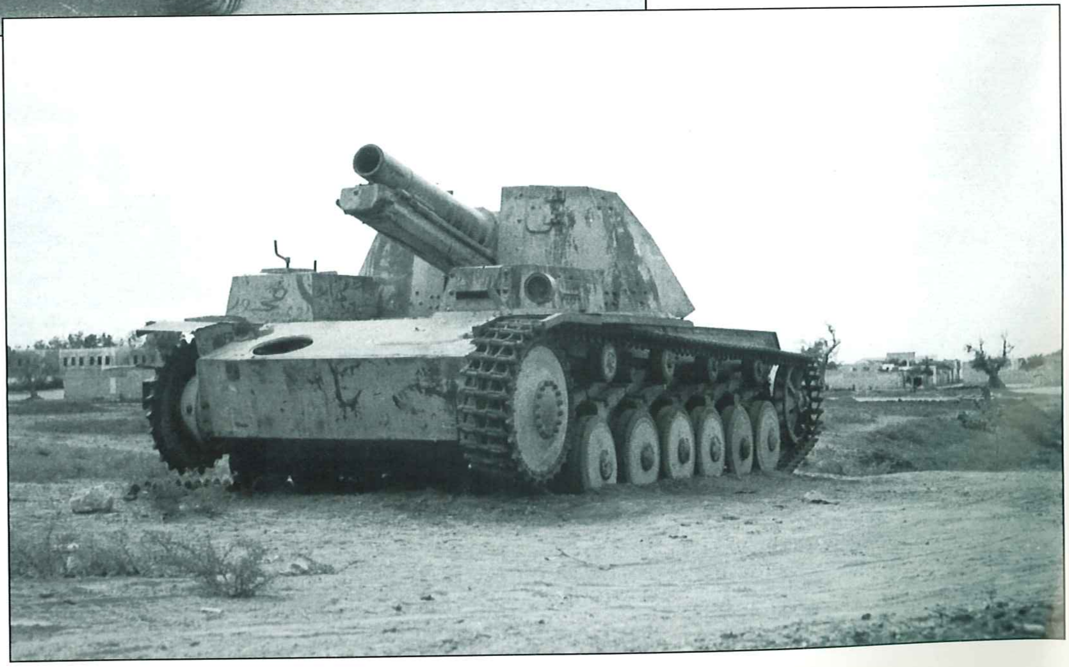
The Syrian Army had some left-over equipment from French colonial forces in the Levant, including a small number of Renault 35.R tanks. Although obsolete by European standards, they were a formidable force when facing poorly armed kibbutz defenses in 1948. This tank was lost during the fighting at the Degania kibbutz in 1948.

The Egyptian Army had a modest armored force, equipped with British vehicles supplied during World War II. Here a column of Humber Light Reconnaissance Cars Mk. III on parade. These armored cars were usually armed with a Boys anti-tank rifle and a Bren gun: more than adequate to deal with the improvised Israeli armored vehicles of the period. (Joseph Desautels)

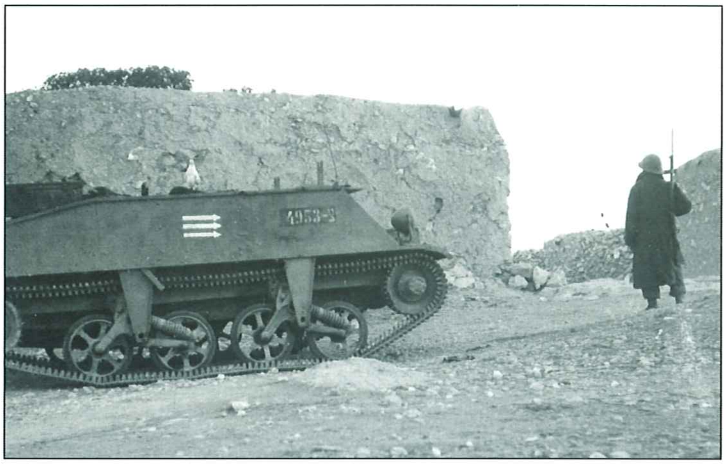




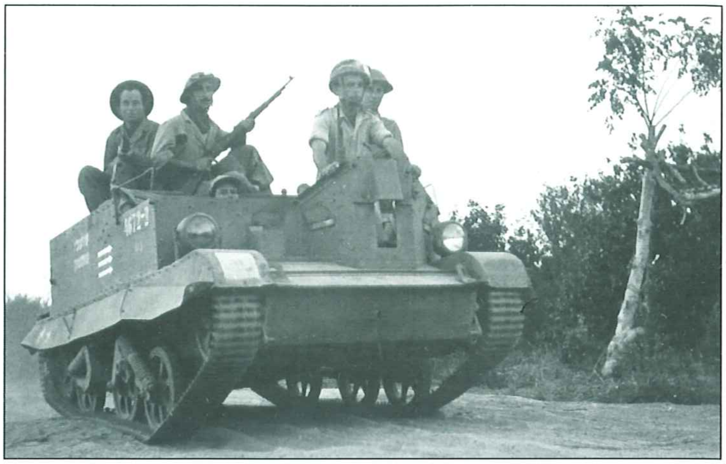
A Humber Mk. IV armored car of the Egyptian Army captured by Israeli forces in the 1948 fighting in the Sinai. It is not clear if the white circle insignia is a "C" Squadron marking or a national identity marking. This was a formidable vehicle by 1948 standards, but was hard to keep in running order due to a lack of spares and trained mechanics. (Israeli Government Press Office)



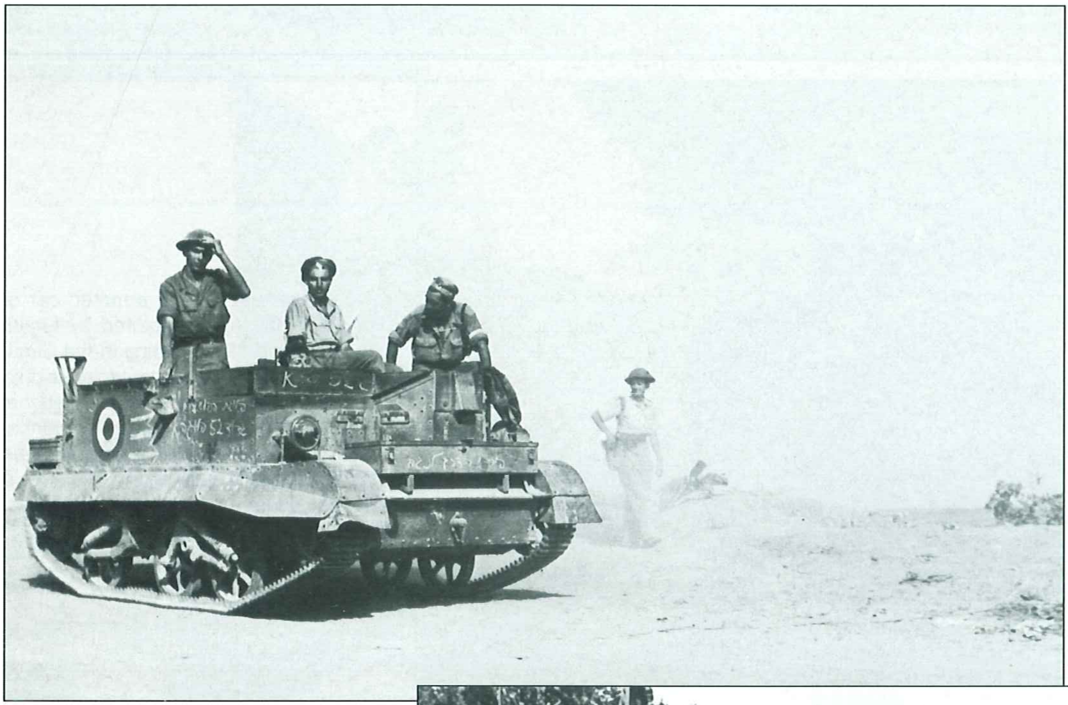
Undoubtedly one of the strangest armored vehicles in Egyptian service in 1948 was this old German 15cm sIG33 auf Fgst PzKpfw II (Sf) self-propelled howitzer. Based on the PzKpfw II chassis, a number of these were lost by the Afrika Korps during World War II and later recovered and repaired by the Egyptian Army. (Israeli Government Press Office)



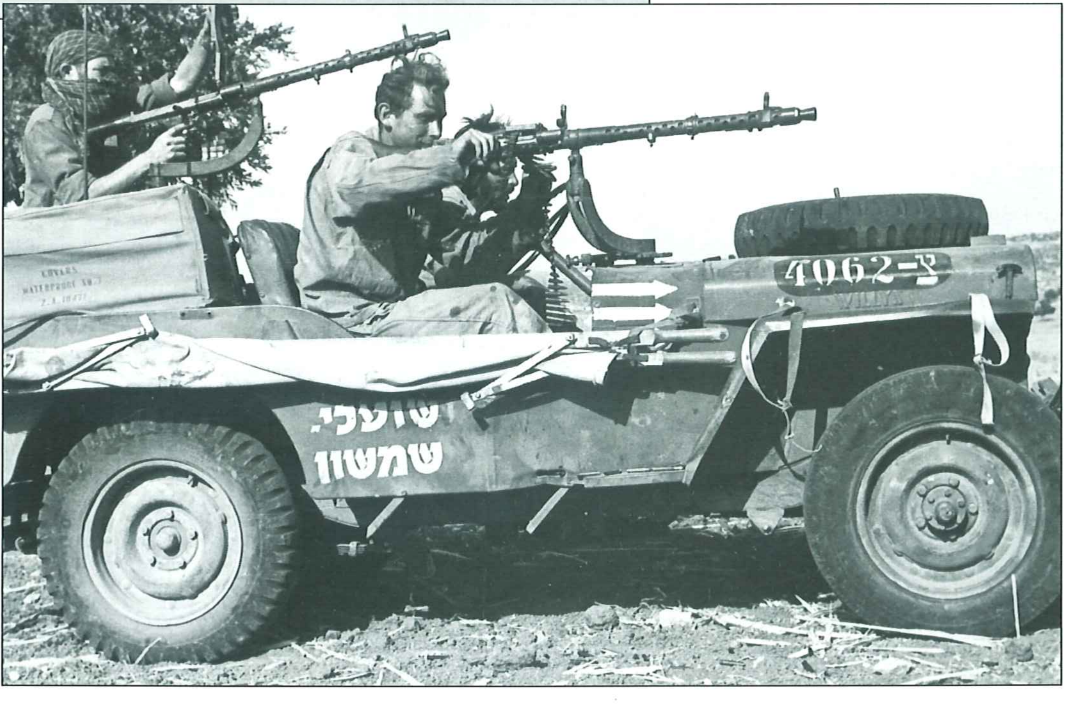
The Egyptian Army had a significant number of Loyd Towing Carriers which were used to tow 6 pdr. anti-tank guns. Several were captured and impressed into Israeli service. This example carries an Israeli military serial number and the three arrow insignia of the Israeli Southern Command. (Israeli Government Press Office)



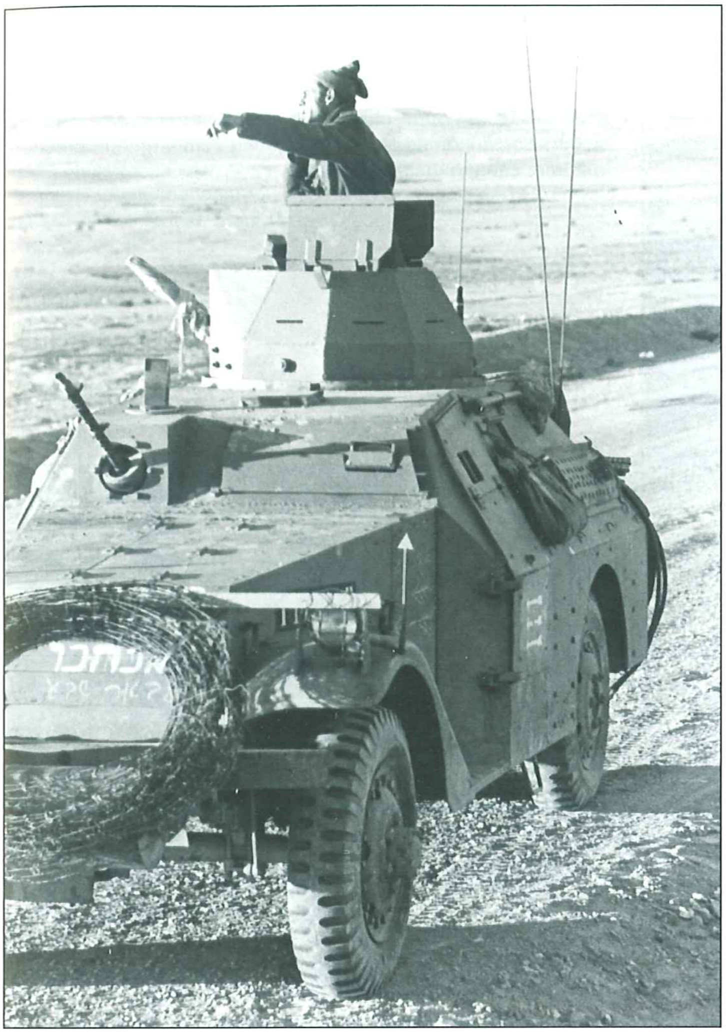
Several Universal Carriers were captured from the Egyptian Army and promptly pressed into Israeli service. This example is already painted with the three arrow insignia of Southern Command and has an Israeli military serial block painted in front. The Egyptian infantry had 298 Universal Carriers at the time of the 1948 war. (Israeli Government Press Office)

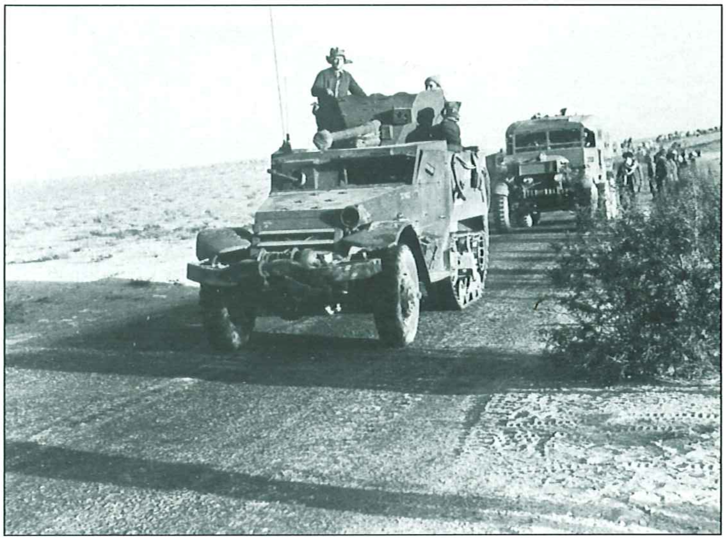


An Egyptian Universal Carrier still in its original markings after having been captured by Israeli troops in October 1948. Many Egyptian Universal Carriers and Loyd Carriers were painted with the red/white/green national roundel as seen here. Its new crew has already chalked on the three white arrow insignia of the Israeli Southern Command. (Israeli Government Press Office)



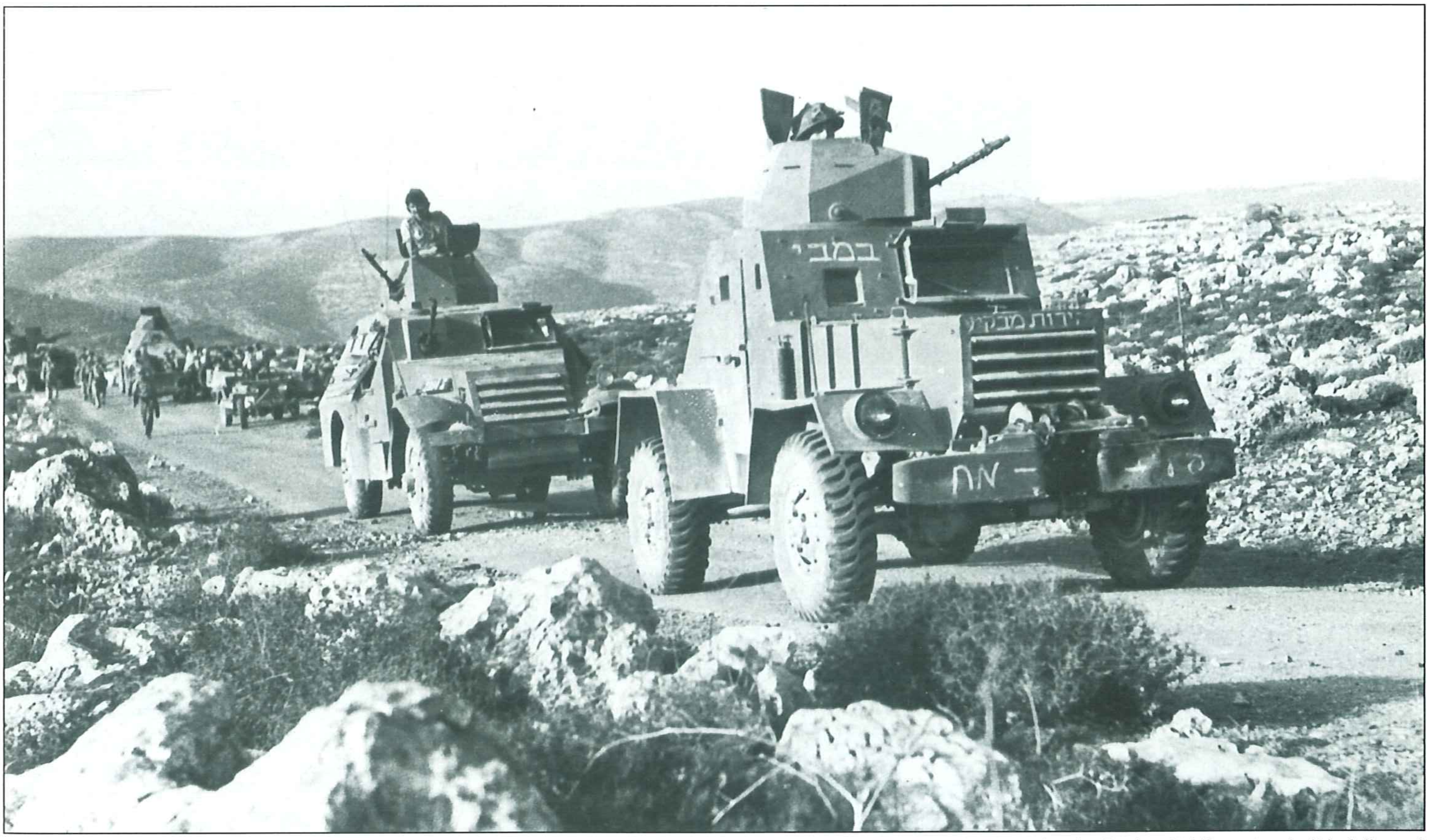
The lack of armored vehicles persuaded the Israelis to arm other vehicles. This jeep attached to a Southern Command unit, probably Moshe Dayan's 88th Mechanized Battalion, and has had a pair of MG.34 machine guns added with their own pintle mounts. These were probably obtained from Czechoslovakia. (Israeli Government Press Office)



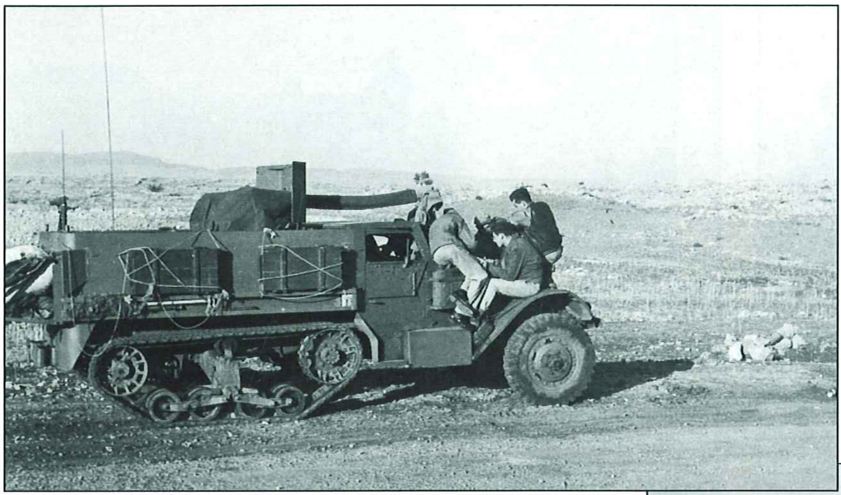


Lacking sufficient tanks, the Israeli 82nd Tank Battalion pressed other vehicle into service. This IHC M5 or M9 half-track has had a 6 pdr. anti-tank gun bolted down into the fighting compartment to turn it into an improvised tank destroyer. This also shows a feature that would become characteristic of Israeli half-track improvements- the addition of a machine gun position in the right side of the cab. (Israeli Government Press Office)

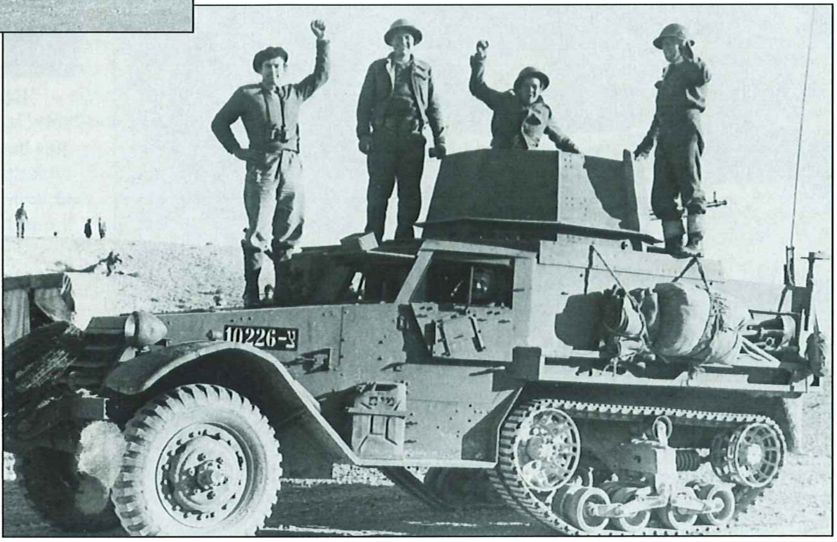
Israeli forces managed to obtain some demilitarized M3A1 scout cars in Europe. They were refurbished by workshops in Jerusalem with new armor plate, and in some cases a small machine gun turret. Although the forward section of this rebuilt M3A1 scout car bears some resemblance to the original, the section from the driver's compartment rearward is virtually all new. This vehicle carries the markings of the Israeli Southern Command. (Israeli Government Press Office)



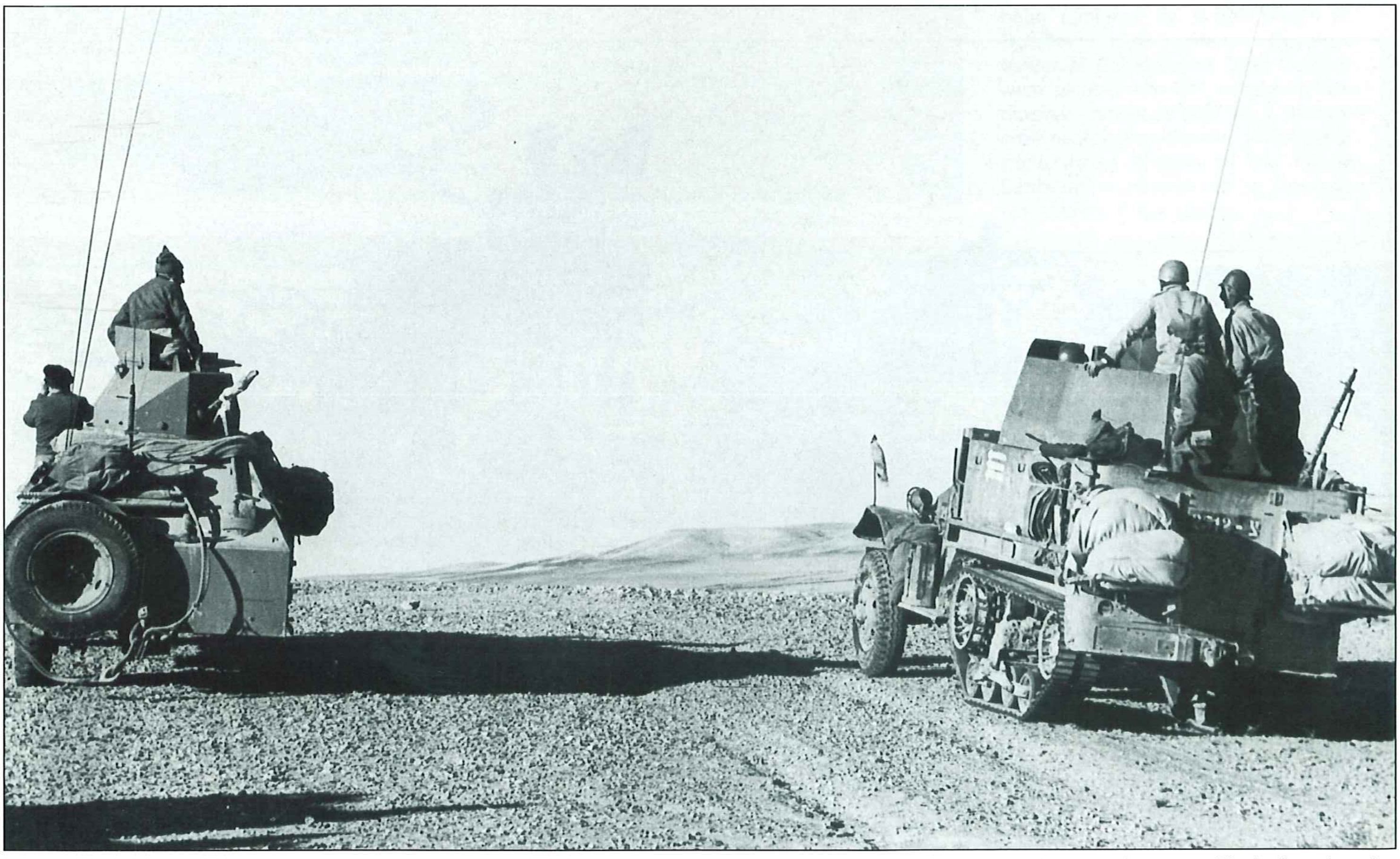
Lacking sufficient armored vehicles, Israeli forces improvised their own. This lead vehicle is built on the chassis of a Dodge 2-1/2 ton truck. It is followed by one of the rebuilt M3A1 scout cars. (Israeli Government Press Office)



American half-track were purchased in Europe in some numbers and were the most numerous of the Israeli tracked armored vehicles in the 1948 fighting. They were frequently armed with heavy weapons that could not be mounted on improvised armored cars. This M9 half-track has had an automatic cannon added in the fighting compartment, probably a 20mm cannon. (Israeli Government Press Office)

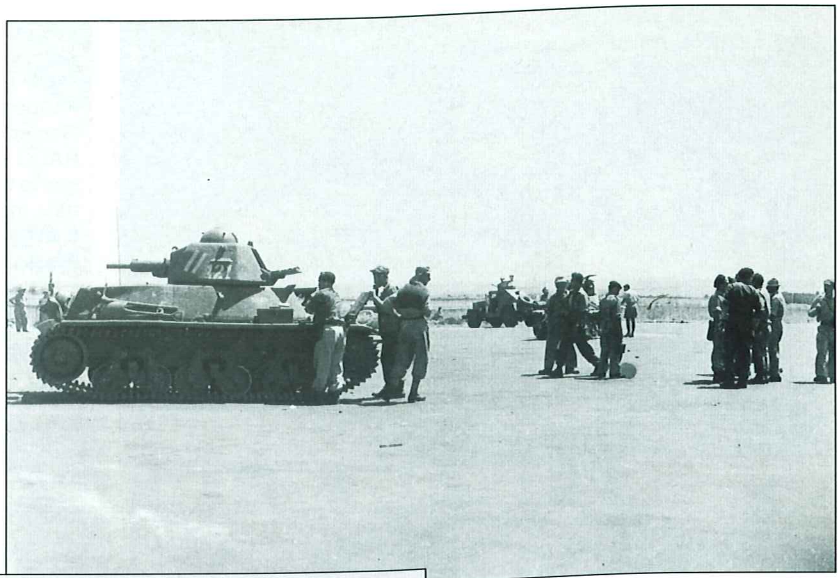


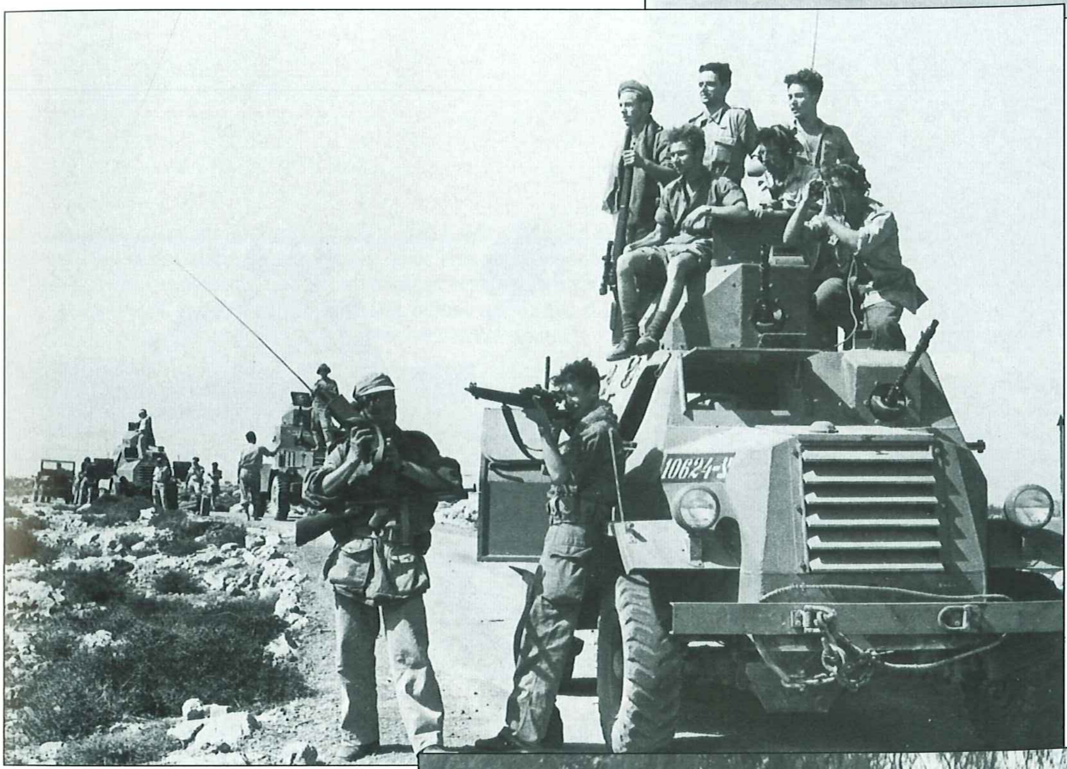
Another M9 half-track rebuilt, this time with a large turret mounting an unidentified machine gun or automatic cannon. These half-tracks remained in Israeli service for over thirty years and so fighting in no fewer than four wars. (Israeli Government Press Office)



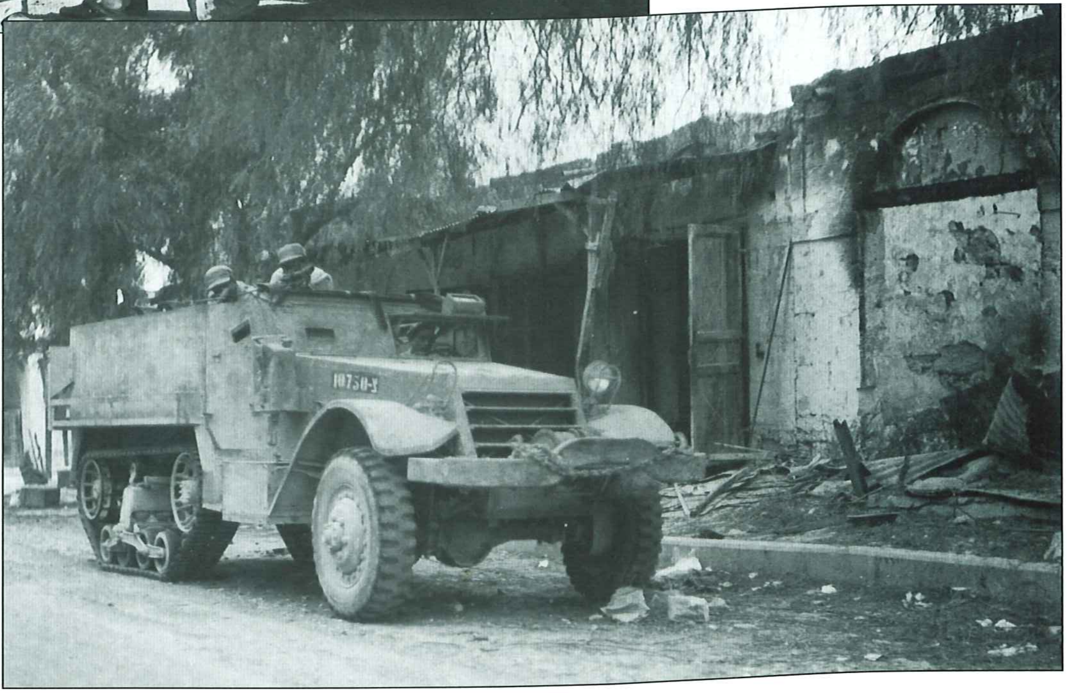
A half-track column from the 9th Battalion, Negev Brigade, Israeli Southern Command during the Sinai fighting in December 1948. The half-track to the left is one of the rebuilt turreted types, while the vehicle to the left is a rebuilt M3A1 scout car. (Israeli Government Press Office)

Among first tanks of the Israeli forces were a small number of Hotchkiss 39.H tanks purchased apparently from France under murky circumstances. They were employed by the "Russian Company" of the 82nd Tank Battalion during the capture of Lydda airbase in 1948. The company acquired its name from the fact that the Polish and Russian Jewish crews used Russian as the communication language in the unit. The "English" company was equipped with Sherman and Cromwell tanks. (Israeli Government Press Office)

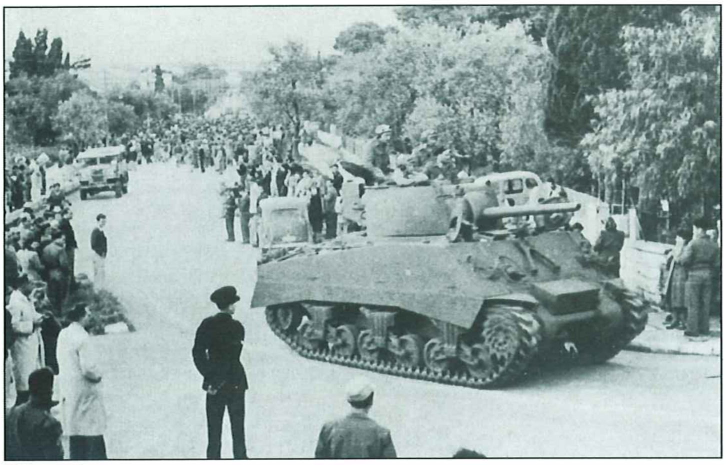




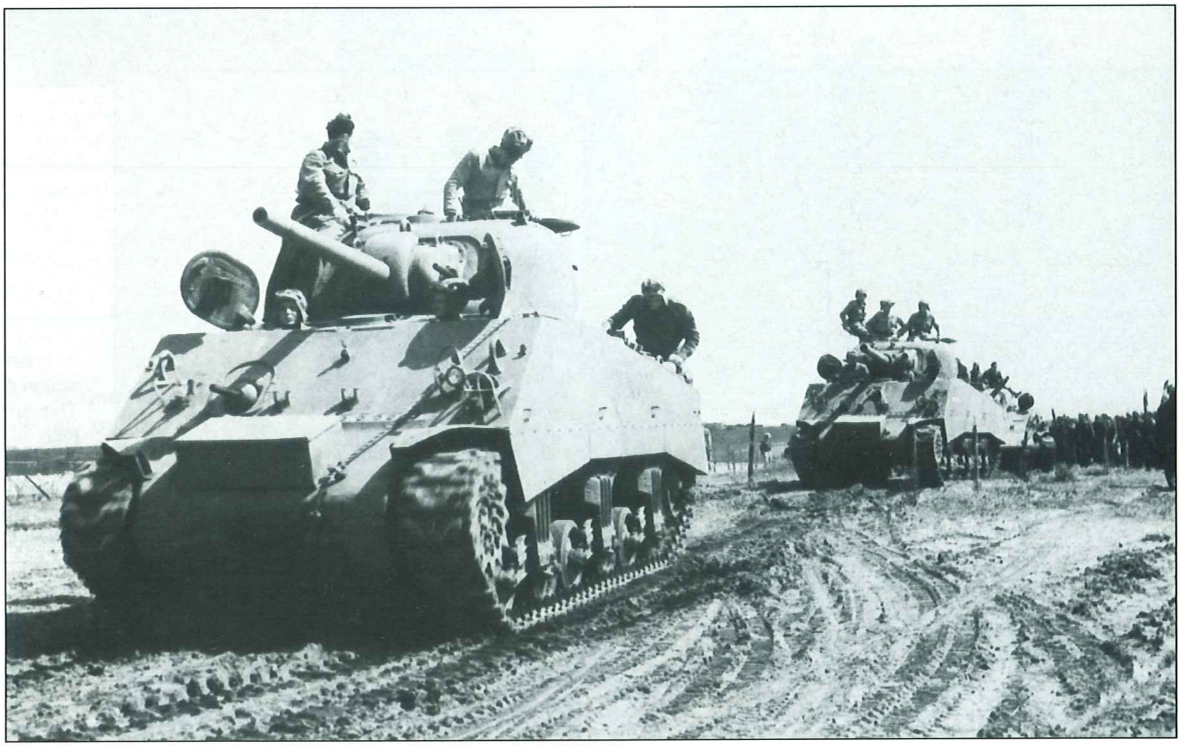
An improvised armored car in action during the October 1948 fighting. The turret of this vehicle is a standard type, also seen on the similar M3A1 and Dodge 2-1/2 ton truck conversions. It is armed with two German MG.34 machine guns. (Israeli Government Press Office)



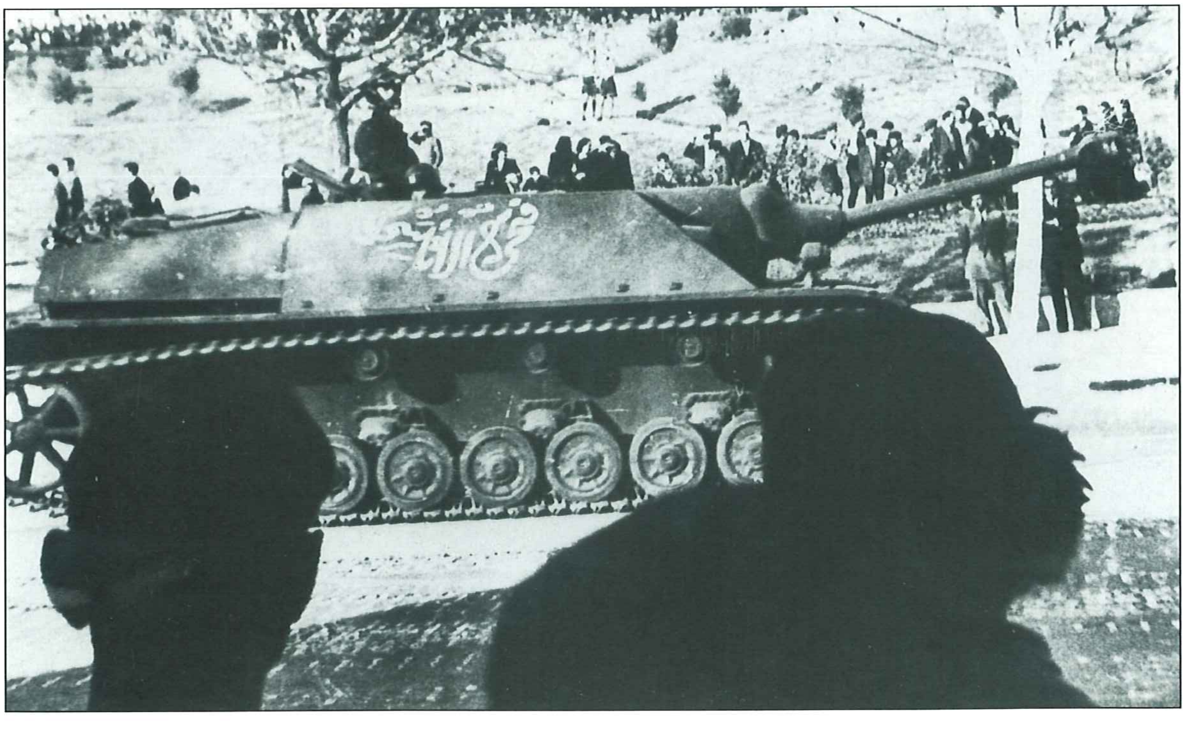
Some Israeli half-tracks remained largely unmodified and were used in their original role as infantry carriers during the fighting in Beersheba in 1948. This M5 or M9 half-track of the Negev Brigade is fitted with an armored glass cover over the driver's slit, and one of the crew is armed with a German MG.34 machine gun. (Israeli Government Press Office).



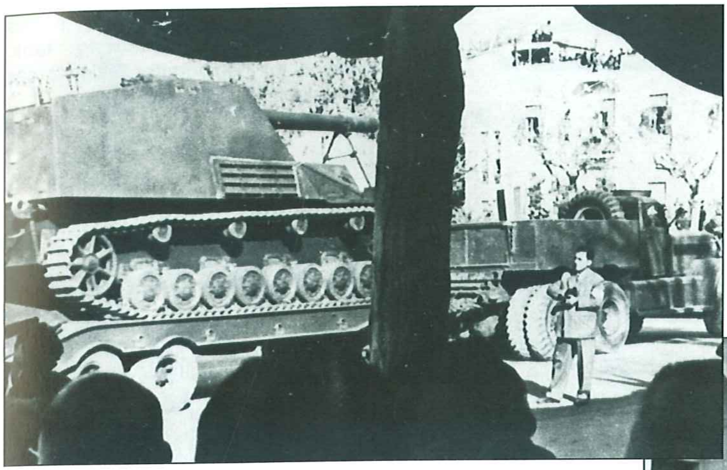
In 1948, Israeli workshops assembled at least two Sherman tanks from various wrecks and parts left behind by British forces. They also purchased a few more Sherman tanks in various states of disrepair in Italy and the Philippines like this example here. This is apparently the tank nicknamed "Tamar", a M4A2(W), formerly of the Wiltshire Yeomanry left behind at the RAOC depot at Tira. On withdrawing, the British troops removed the tank's gun to demilitarize it. Israeli workshops later rebuilt it using guns salvaged in Italy, including an early M34 75mm gun mount. This tank took part in the fighting around Rafah with the 82nd Tank Battalion. (Israeli Government Press Office)



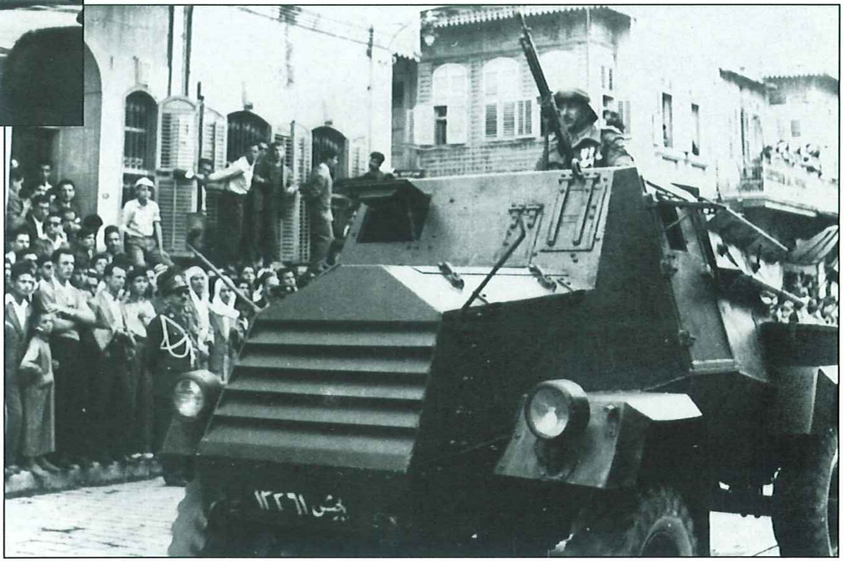
This is probably "Tamar", the M4A2 Sherman seen in the above photo. Behind it are some of the M4 105mm howitzer tanks purchased in Italy. These had been demilitarized by drilling holes in the gun tube. However, some were patched and used during the 1948 fighting. Some of the more thoroughly demilitarized tanks had their 105mm howitzer tubes replaced with World War I Krupp 77mm gun tubes. (Israeli Government Press Office)



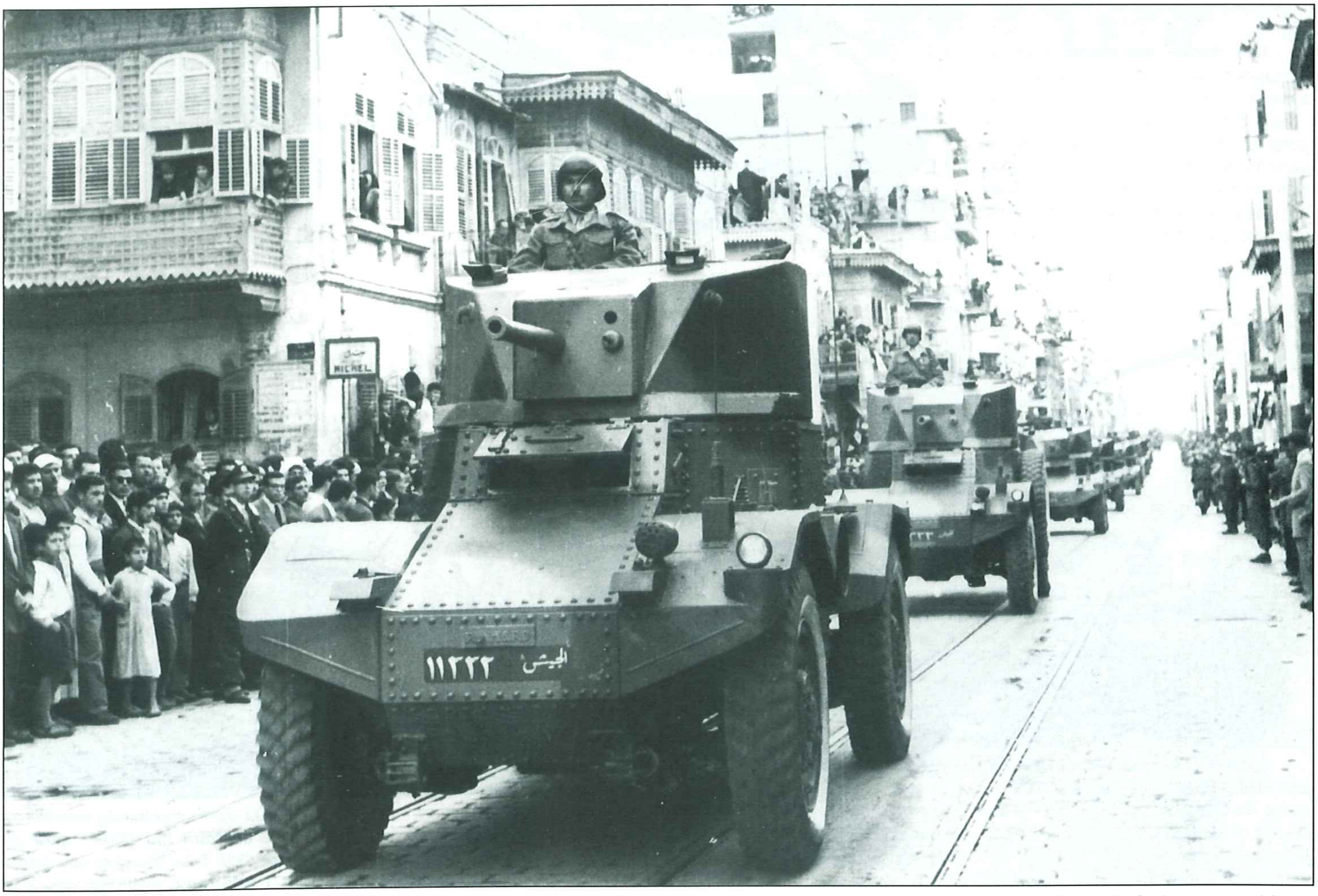
Following the 1948 fighting, the Syrian Army attempted to modernize its small armored force. A number of former German Wehrmacht officers were hired to provide training, and some old German armored vehicles were acquired from France, Czechoslovakia and other countries. One of Syria's lesser known acquisitions were six German Jagdpanzer IVs. This one was the earlier type with the L/48 gun.



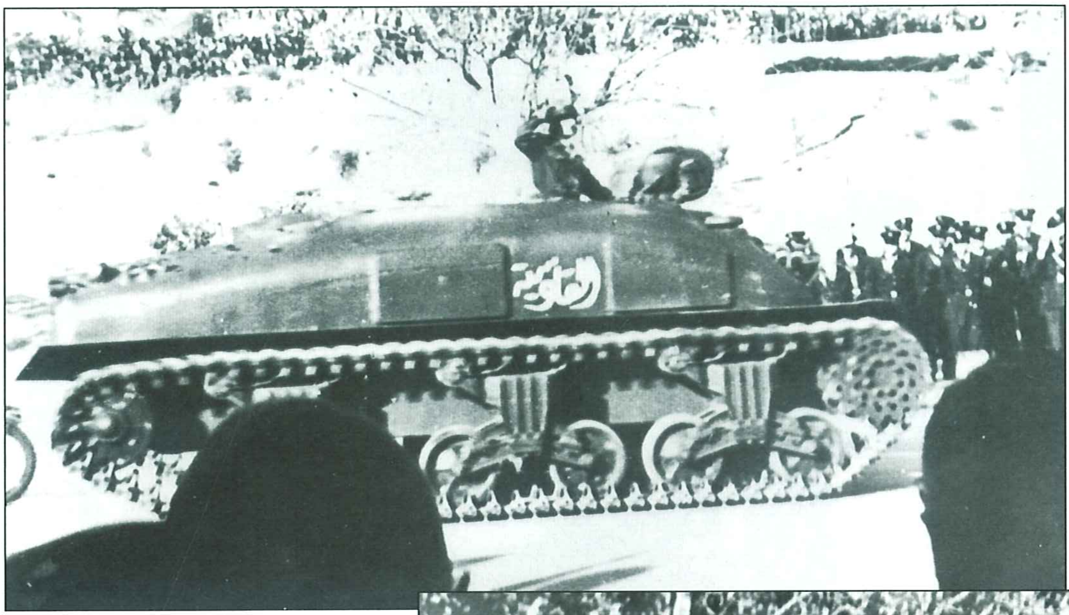
Another of the lesser known Syrian acquisitions was the Hummel 150mm self-propelled howitzer. There were a total of five of these obtained, probably from France. These were supported by two improvised self-propelled guns created by mating US 75mm guns on French Chenillette Lorraine chassis, and others armed with French 65mm mountain guns.



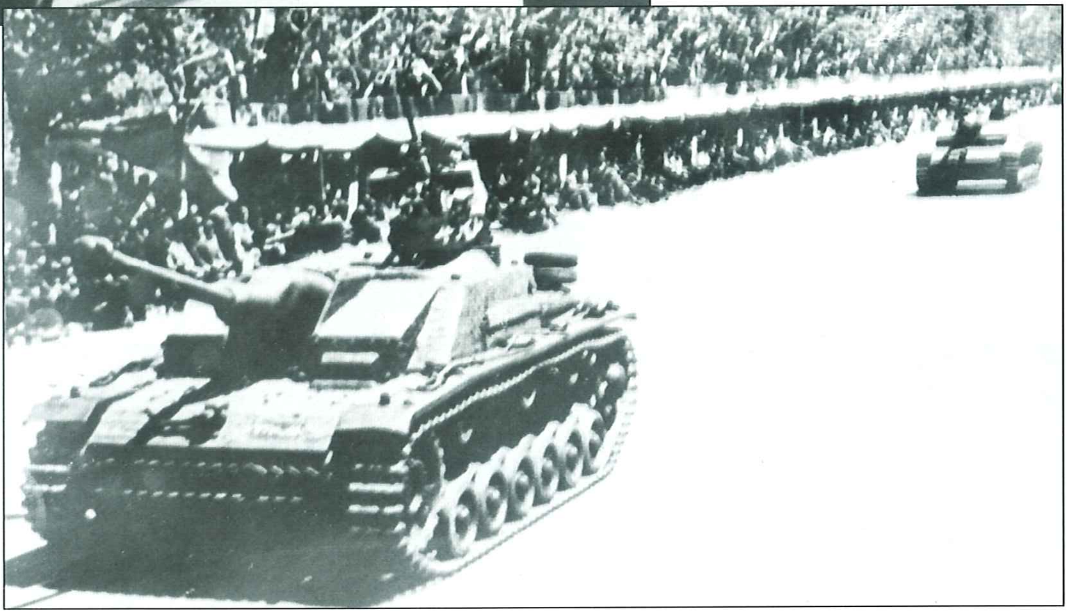
Besides German armored vehicles, Syria also managed to acquire some Canadian Otter armored cars. This side view of a Syrian Otter I shows that a simple parapet has been added around the roof, and a simple pedestal mount added for the machine gun, a French Chatelerault Mle. 1924/29 7.5mm.



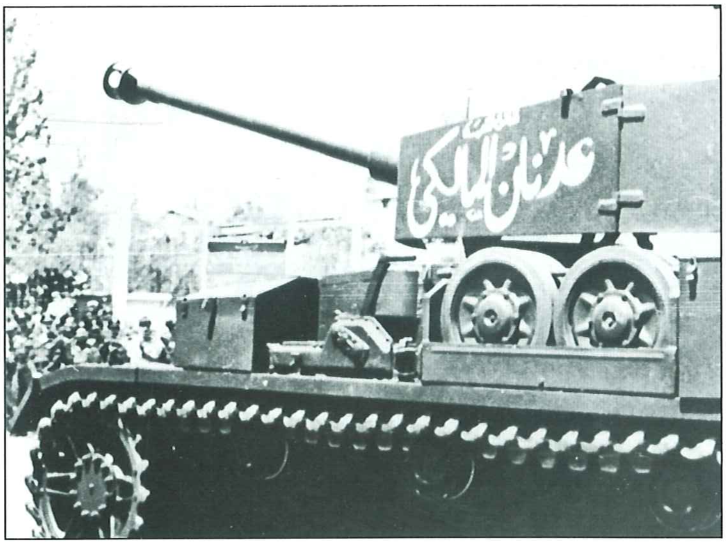
Syria still had a variety of armored vehicles left over from French colonial days. Typical of the French flavor of much of the early Syrian armored force is this column of Panhard 178B armored cars. Syria still operated about 10 Renault 35.R infantry tanks well into the 1950s.



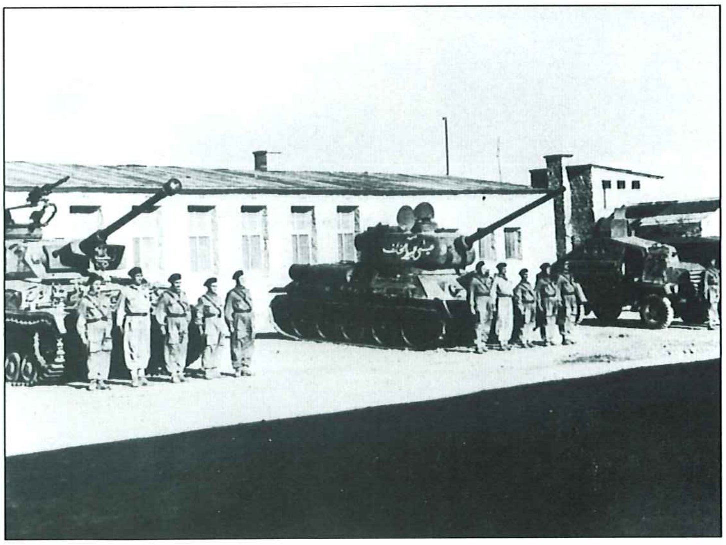
Another Syrian oddball is this turret-less M4A1 Sherman tank, probably left behind after British forces withdrew from the region.



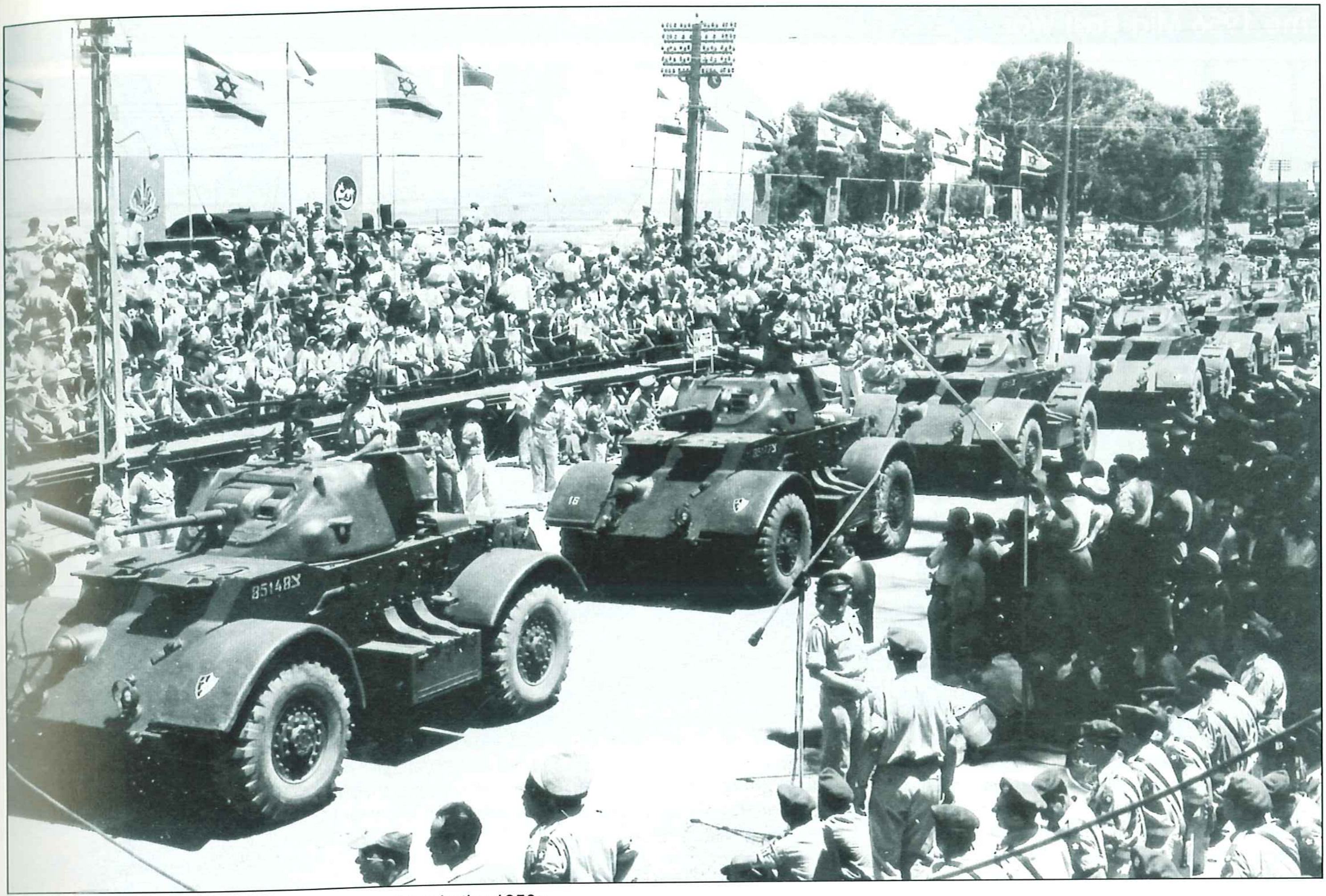
The most numerous German acquisition were 28 StuG III Ausf G assault guns, acquired in France. These Syrian StuG III Ausf G assault guns on parade in Damascus in the early 1950s. This vehicle is still covered with *zimmerit* anti-magnetic mine paste, but has a locally developed anti-aircraft machine gun added.



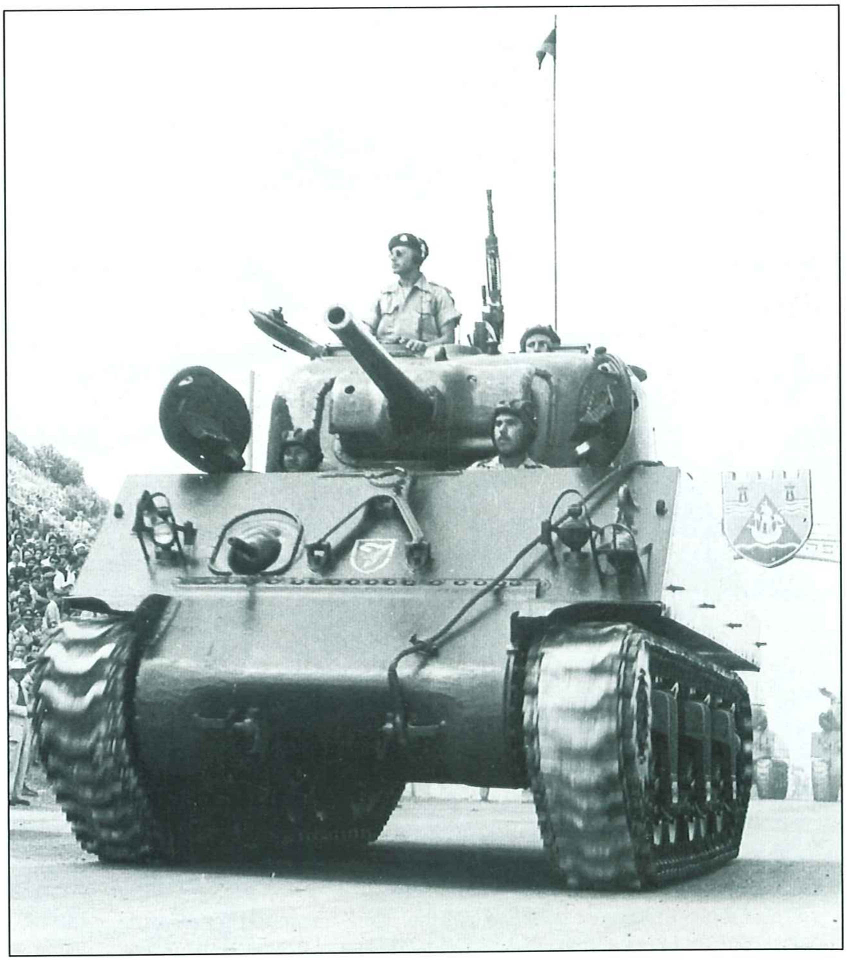
A good example of one of the Syrian PzKpfw IV tanks obtained in the late 1940s. The configuration of the stowage boxes suggests that this tank came from Czechoslovakia, but there is also evidence that France was the source of at least some of these tank. There were a total of about 25 PzKpfw III and PzKpfw IV tanks in Syria by 1953, and there have been some suggestions that they were later reinforced by purchases from Franco's Spain. A handful of these tanks were sold to Batista's army in Cuba in 1958-59 after Soviet and Czechoslovak T-34-85s became available.



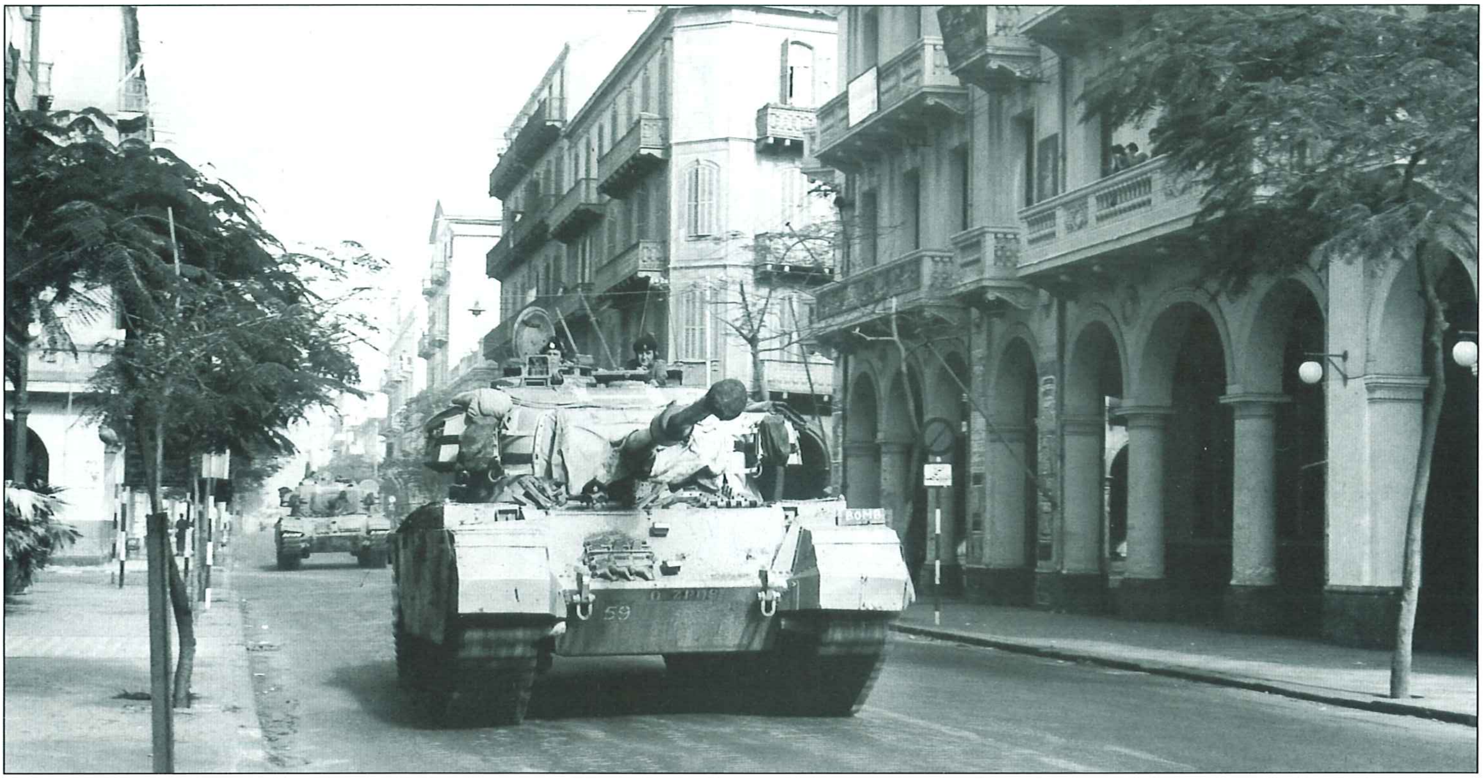
A line-up of Syrian armor in the late-1950s shows the three generations of Syrian armor, a PzKfw IV, a new T-35-85 from the USSR, and an improvised armored car on the Otter chassis. The T-34-85s originally came from the USSR, but purchases also later came from Czechoslovakia. The Otter here appears to be a captured Israeli example with a French SA.18 37mm gun, as the turret seems to be the standard Israeli pattern.



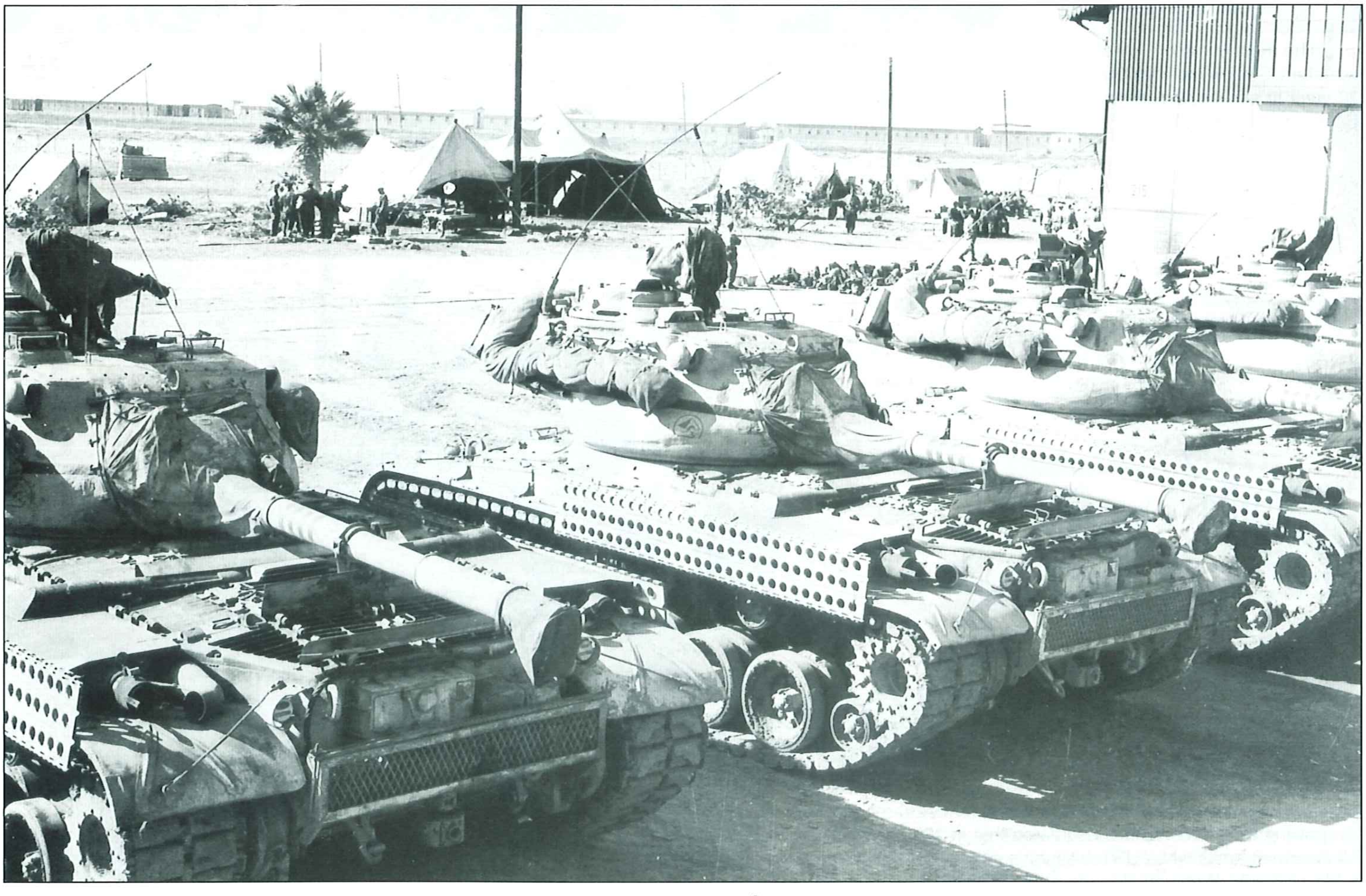
The most common Israeli heavy armored car in the 1950s was the US manufactured Staghound. By the mid-1950s, about 30 were in service, though the source is not very clear. (Israeli Government Press Office)



By the mid-1950s, Israel had managed to acquire a significant number of Sherman tanks which formed the basis of its growing tank force. Britain estimated that in 1952 Israel had 55 Sherman tanks while US intelligence estimated 120. This is a M4 of the 7th Armored Brigade on parade in April 1953. The Israeli tank force also had ten Cromwell tanks and 2 Churchills at this time. (Israeli Government Press Office)

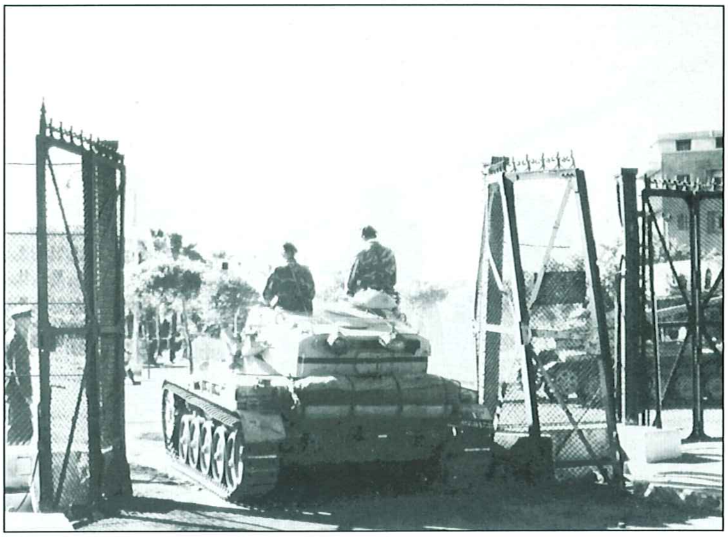


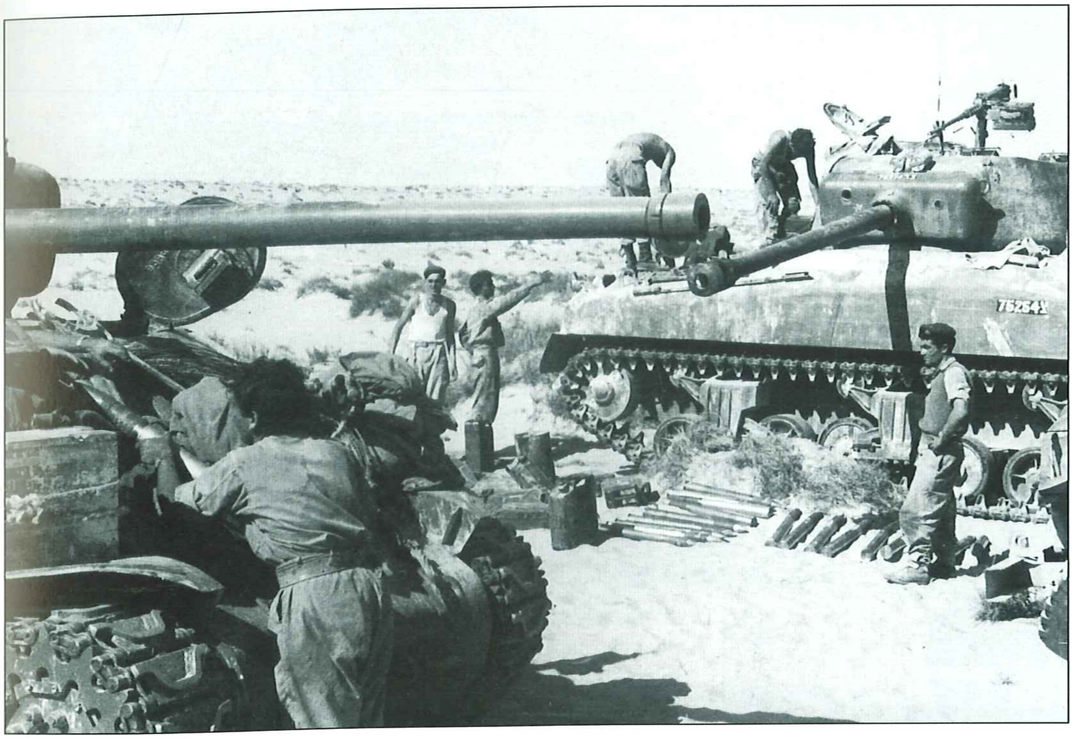
During Operation Musketeer, British forces were supported by Centurion Mk. 5 tanks of the 6th Royal Tank Regiment. This is "Bomb", a tank from B Squadron during the UN-monitored withdrawal from Port Said on 22 December 1956. The allied recognition signs painted on tanks for this operation consisted of a large letter "H" painted on the roof, based on the original codename for the Suez mission- Operation Hamilcar. There was also a black band painted around the turret for ground troop recognition. (United Nations)



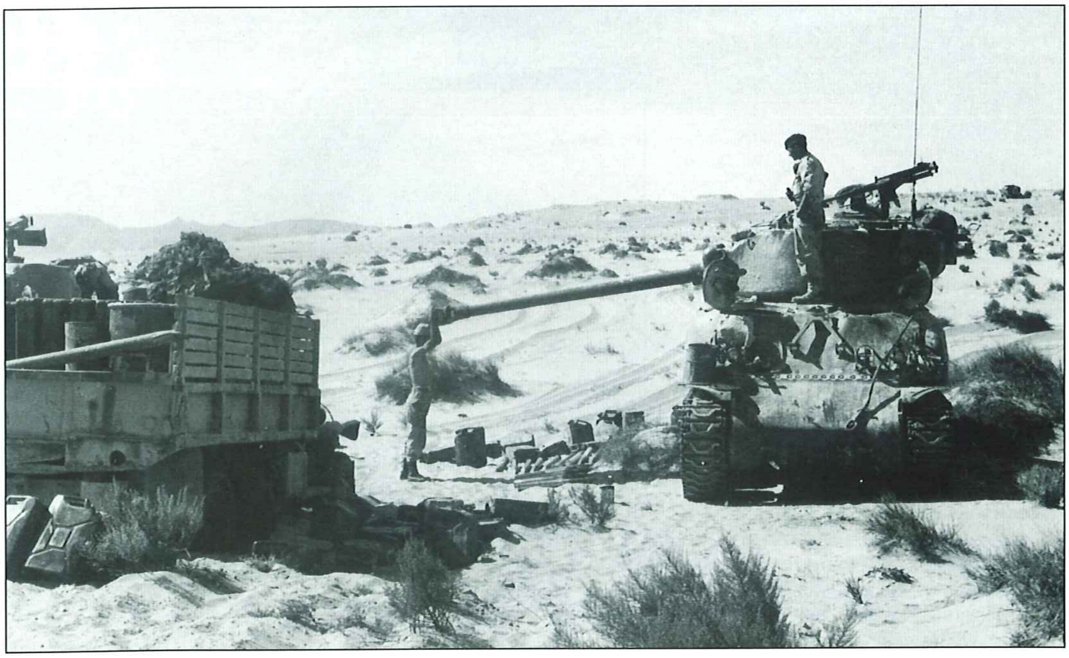
The French contingent during Musketeer were supported by armor from the 8^{e} Dragons, including the M47s seen here. These tanks had several modifications for the operation, including the addition of pierced-steel-planking on the side for use in extracting tanks from soft sand. (Joseph Desautels)

An AMX-13 light tank probably from the 2^{e} REC of the Foreign Legion, leaving Port Fouad on 22 December 1956 during the UN monitored withdrawal. (United Nations)

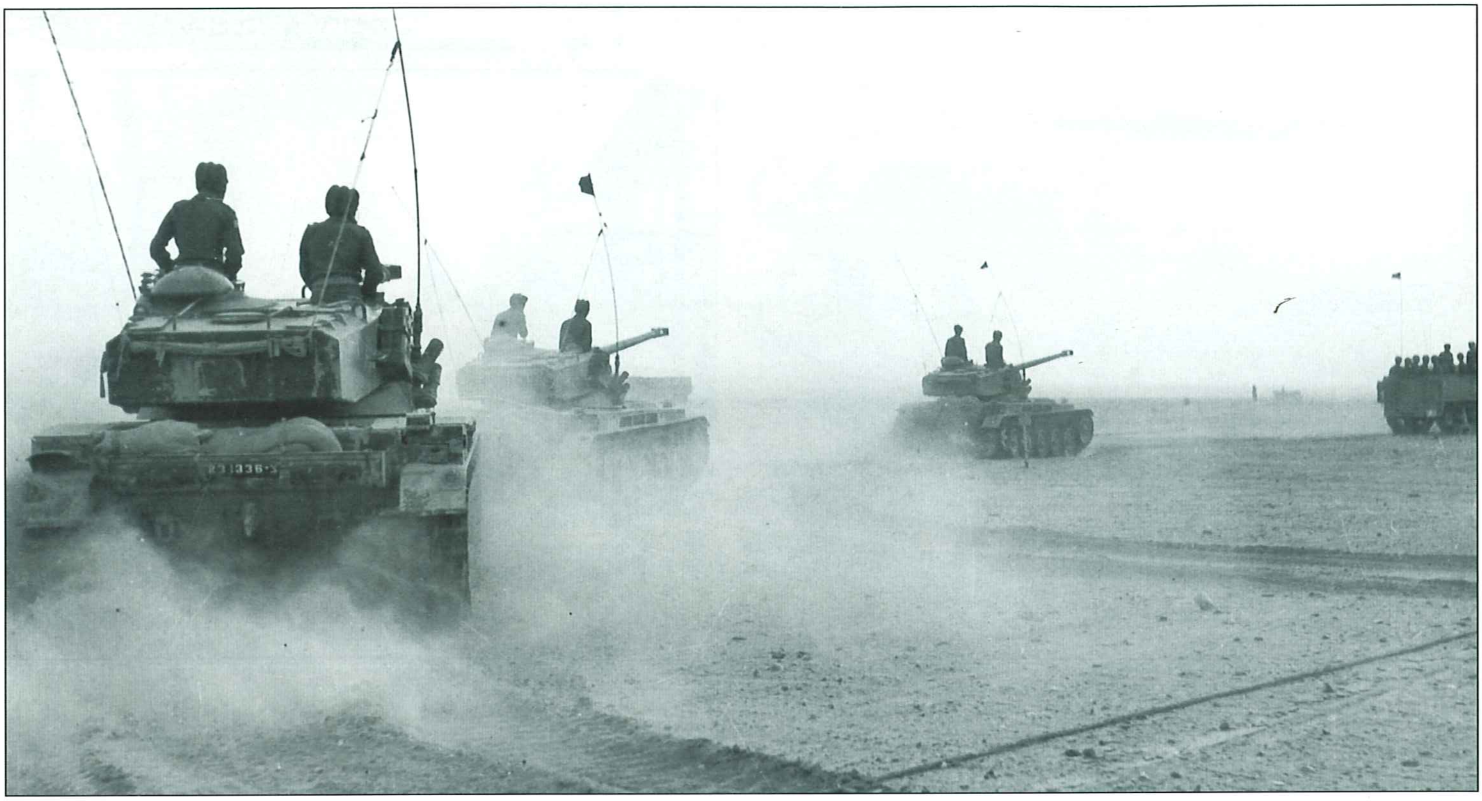




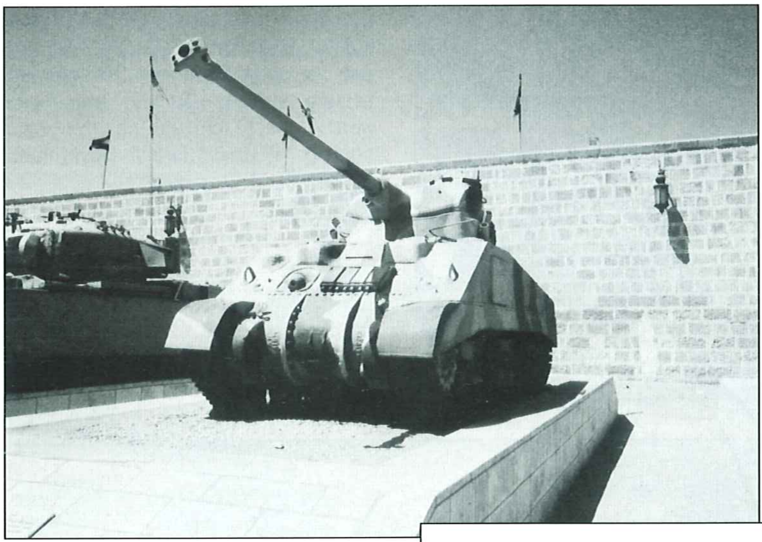
By the time of Operation Kadesh in 1956, the Israeli tank force's Shermans had been reinforced with a significant number of M4A1(W) with 76mm guns obtained from France. They were locally called "M1" Shermans. This is a pair of tanks from the 7th Armored Brigade loading fuel and ammunition near Jebel Libni during the Sinai fighting in 1956. (Israeli Government Press Office)



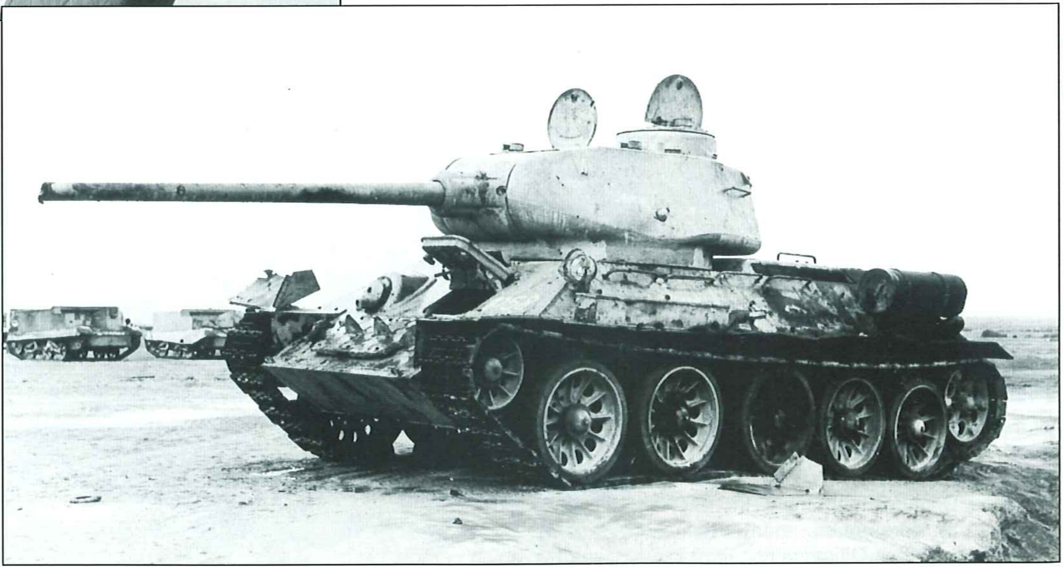
Another view of an "M1" Sherman of the 7th Armored Brigade in October 1956, shortly before the tank battle with the T-34-85 tanks of the Egyptian 1st Armored Brigade Team near the Bir Gifgafa crossroads. (Israeli Government Press Office)



AMX-13 light tanks during the October 1956 fighting. The Israeli Army acquired 100 of these light tanks from France shortly before the war. Although not well armored, their 75mm gun was derived from the wartime German 75mm gun used on the Panther and was extremely potent against contemporary tanks such as the Egyptian T-34-85. (Israeli Government Press Office)

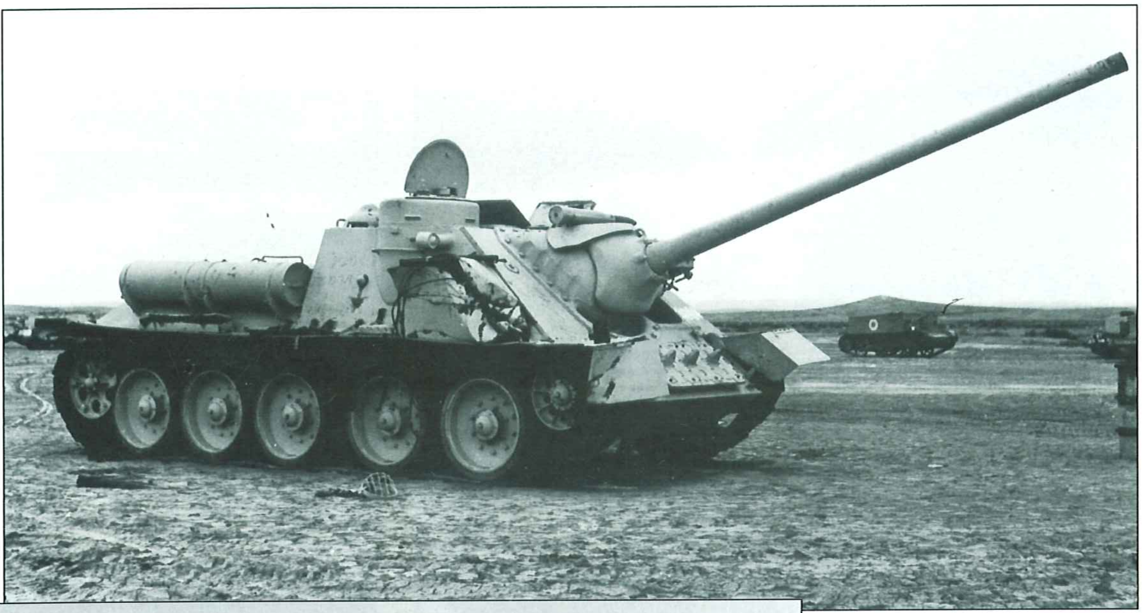


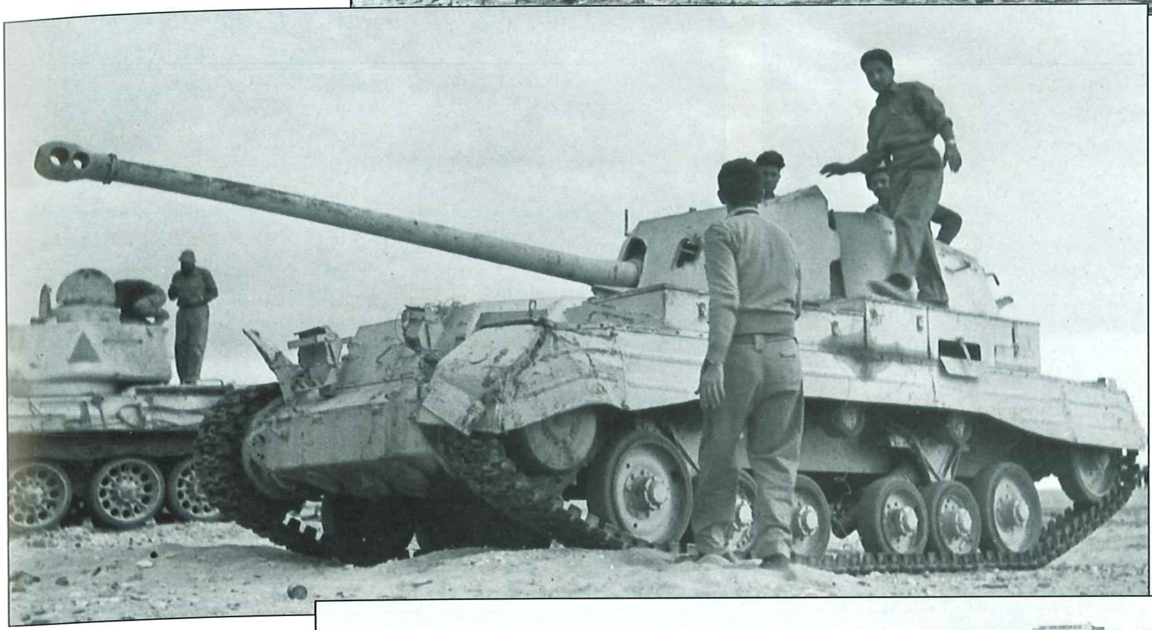
In the mid-1950s, the Egyptian Army had a portion of its M4A2 Sherman tanks refitted with FL10 turrets by the French Batignolles-Chatillon arsenal. These were the type of turrets used on the AMX-13 light tank, and considerably enhanced the firepower of the old Shermans. During the 1956 fighting, at least one Egyptian tank company at El Arish had this type of tank. This example is currently preserved in Egypt at one of the Egyptian Army museums. (Lon Nordeen)



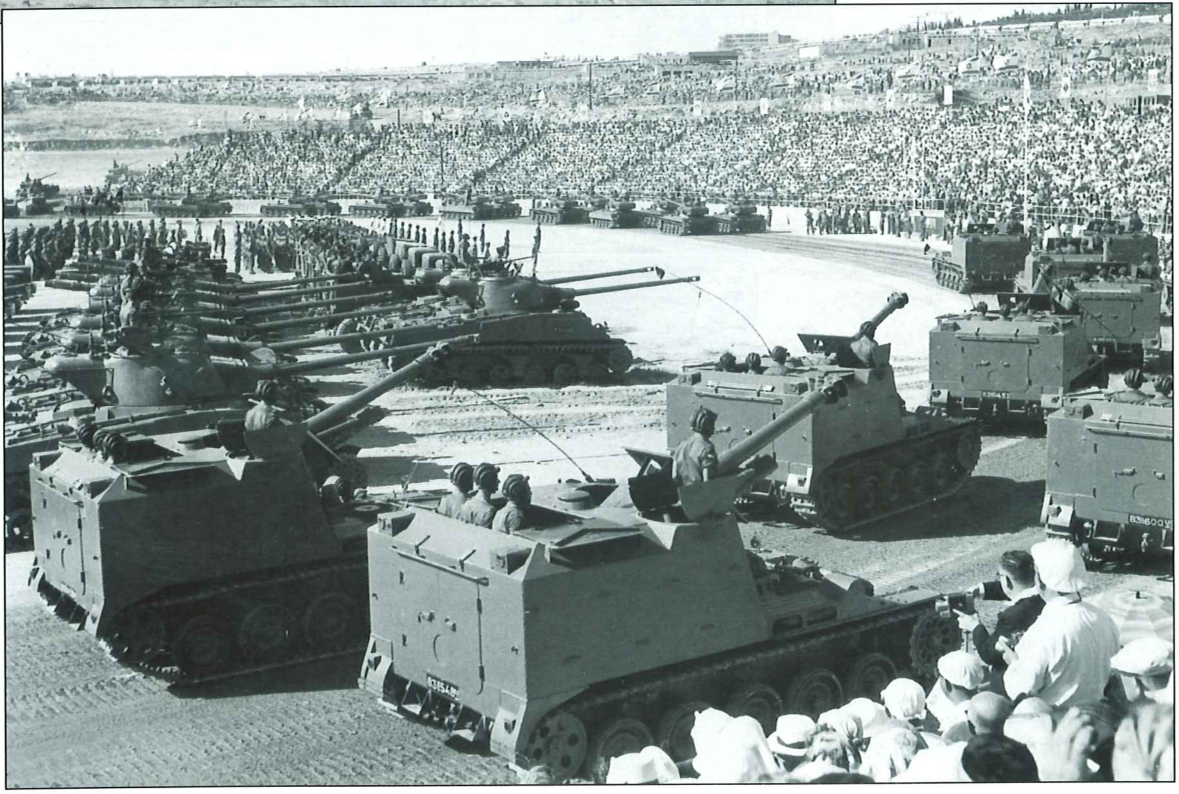
By the time of the 1956 war, the Egyptian Army had been substantially rebuilt following a major arms deal with Czechoslovakia in 1953. This Czechoslovak T-34-85 was one of those captured by the Anglo-French forces during the fighting along the Suez Canal. Notice the Universal Carriers in the background.

Another of the new types of armored vehicles first encountered in the 1956 war was the Czechoslovak manufactured SU-100 tank destroyer. There was a small battle between SU-100s of the 53rd Artillery Battery, 1st Armored Brigade and British paratroopers. One of these vehicles is currently preserved at the Bovington Tank Museum.

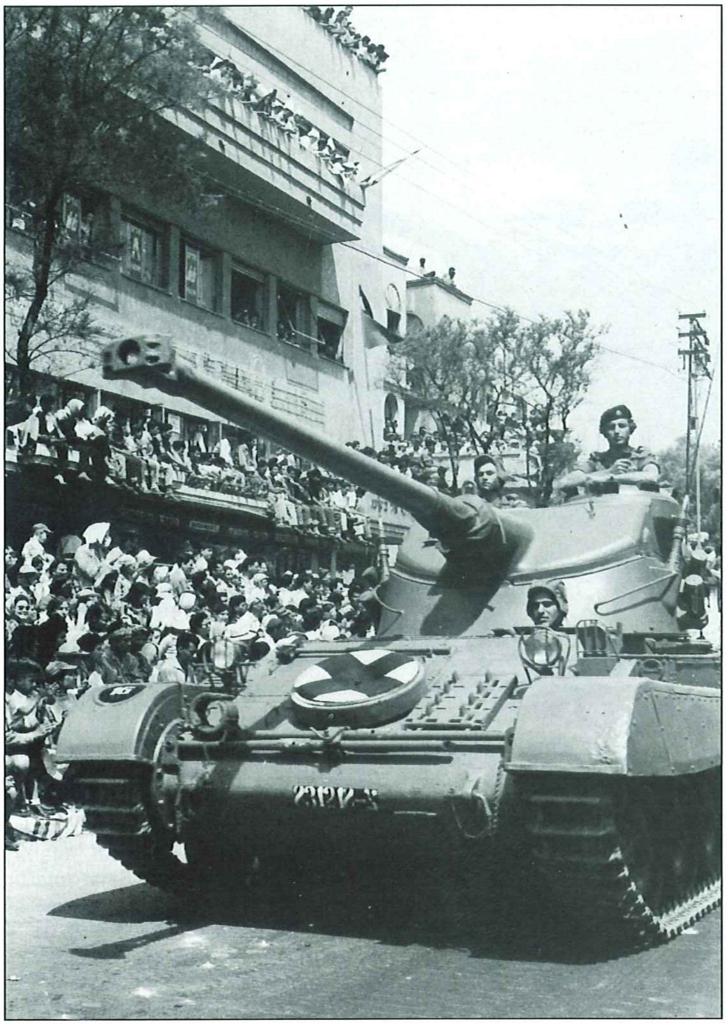




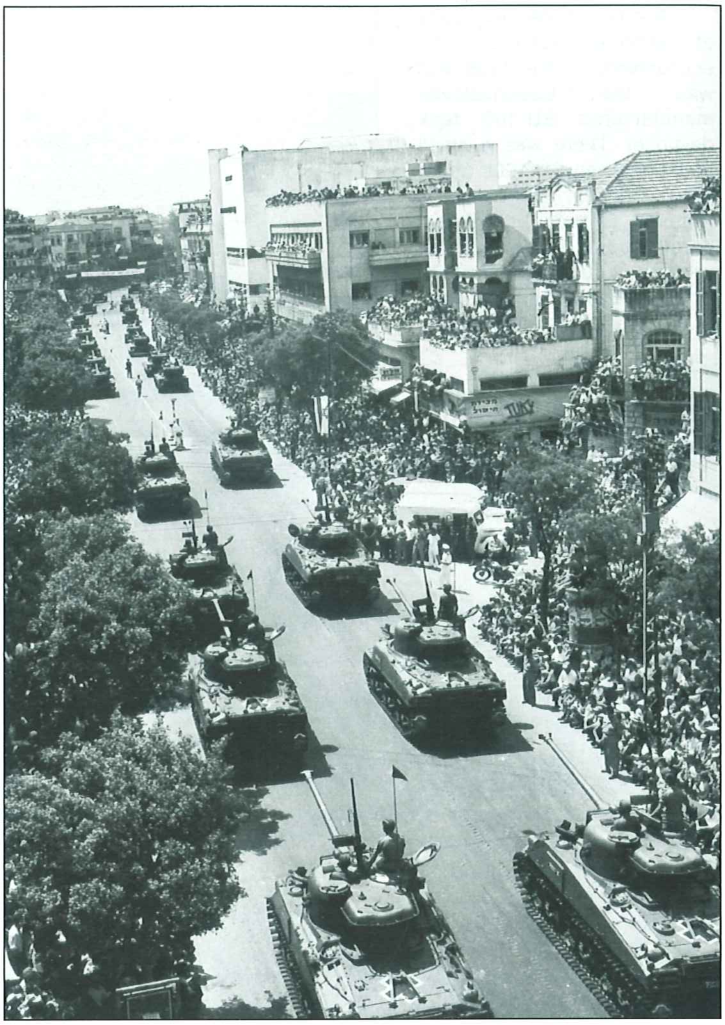
In 1956, the Archer 17 pdr. self-propelled gun equipped at least four anti-tank batteries supporting Egyptian infantry formations in the Sinai, totaling 44 of the 200 Archers provided by Britain in the early 1950s.. A total of 40 of these were captured or destroyed during the course of the fighting. In the background is a Czechoslovak manufactured T-34-85.



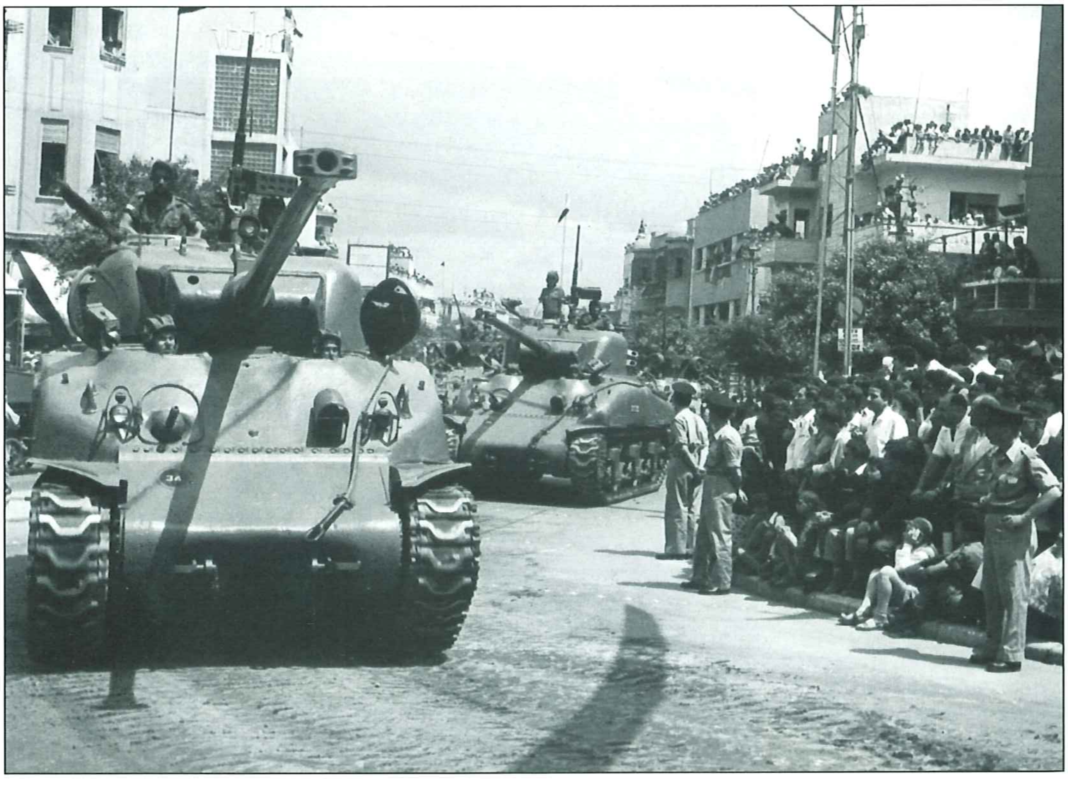
Israel acquired 60 Obusier Mle. 50 105mm self-propelled howitzers from France in the mid-1950s shortly before the outbreak of the 1956 war. These would form the backbone of the mechanized artillery of the Zahal for nearly a decade. In the background of this 24 April 1958 parade are a large number of M50 Super-Sherman tanks. (Israeli Government Press Office)



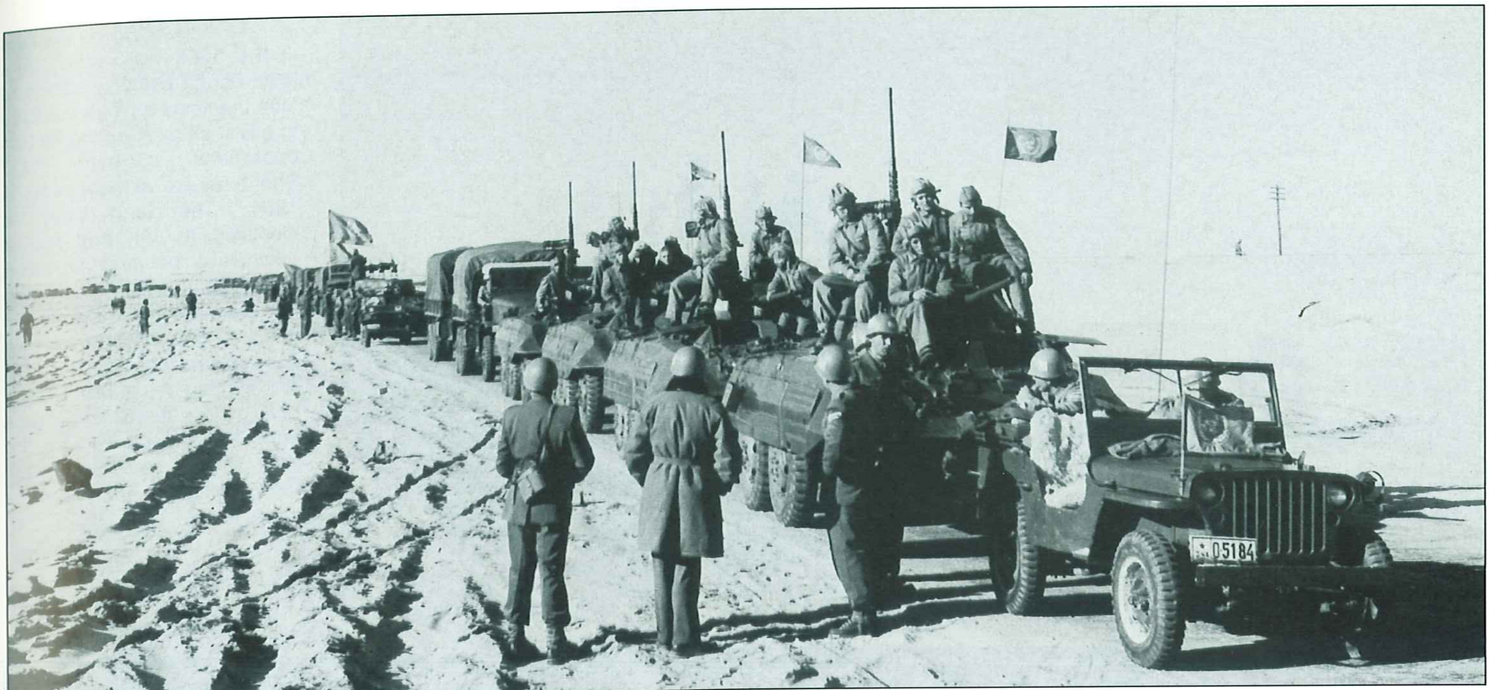
During the 1956 war, Israeli tanks used a blue X trimmed in white as an air recognition insignia. On this AMX-13 light tank, the marking is carried on the spare roadwheel. The Israeli tank force followed the British and American practice of marking the vehicle weight on a bridging circle on the fender. This was in medium blue with a red surround, in this case with the white number 16. Israeli armor at this time was painted in olive drab. (Israeli Government Press Office)



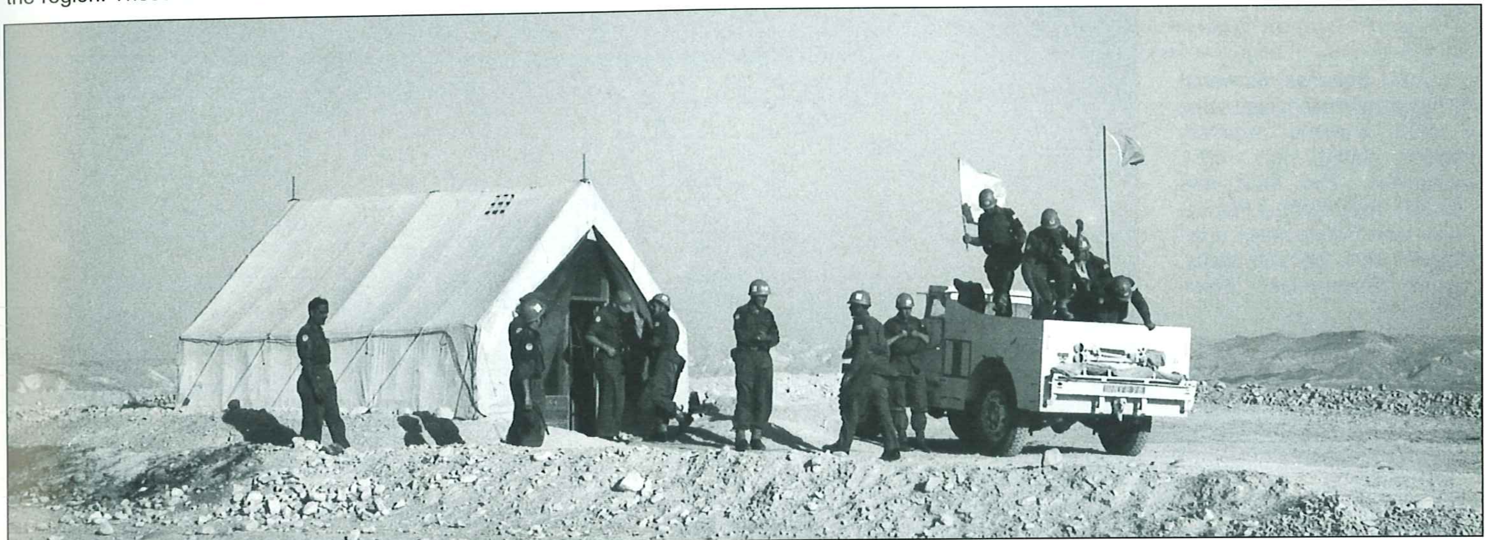
This interesting overview of a parade in 1957 shows a line-up of the new M50 Super-Shermans. This high angle view makes it possible to see the blue and white "X" air recognition sign adopted at the time of the 1956 war. (Israeli Government Press Office)



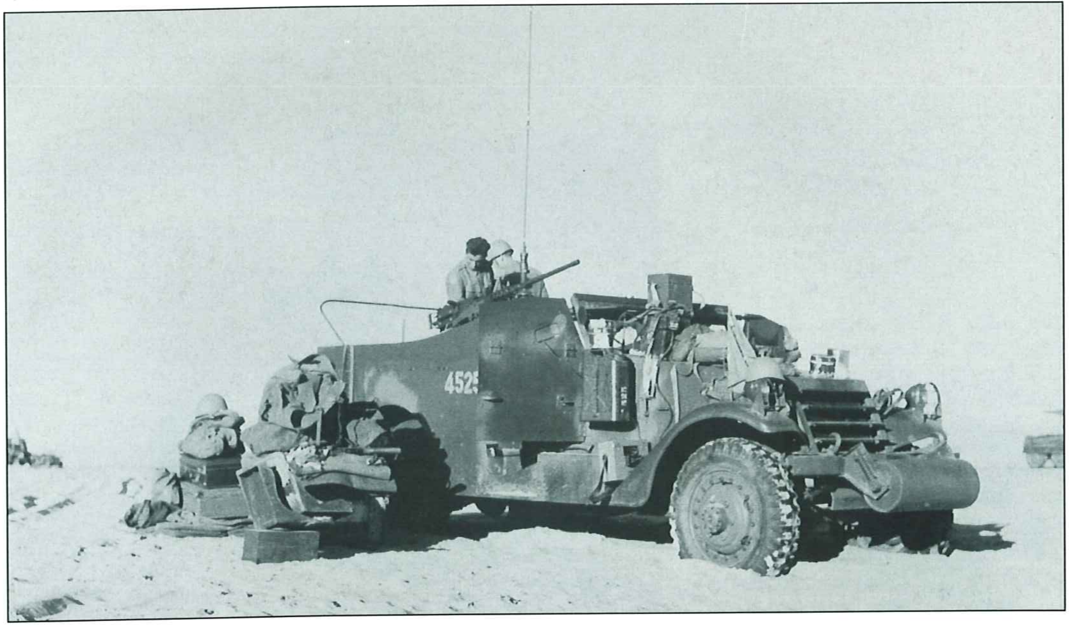
The purchase of T-34-85 tanks by Egypt led Israel to upgrade 100 Sherman tanks with the 75mm gun used in the AMX-13 light tank. This necessitated a turret extension at the rear, and this conversion was carried out by the Atelier de Bourges in France in 1955. In Israeli service, these upgunned Shermans were called M50 Super-Shermans, and two are seen here on parade in 1957. (Israeli Government Press Office)



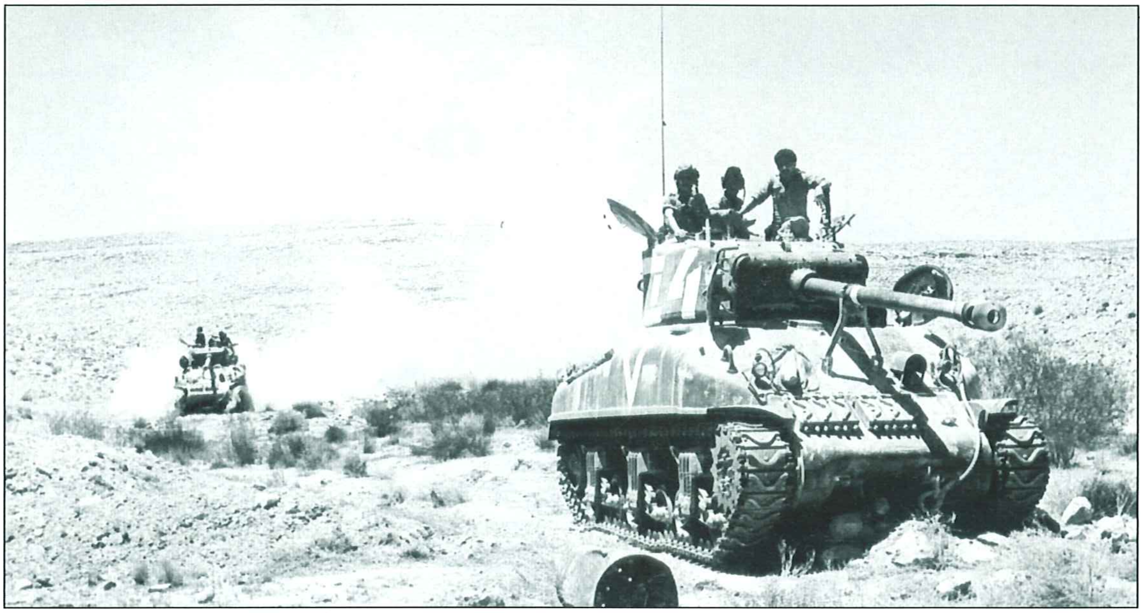
In the wake of the withdrawal of French, British and Israeli forces from the Sinai in late 1956, the United Nations dispatched a peace-keeping force to the region. These are M8 armored cars of a Yugoslav UNEF detachment in January 1957. (United Nations)



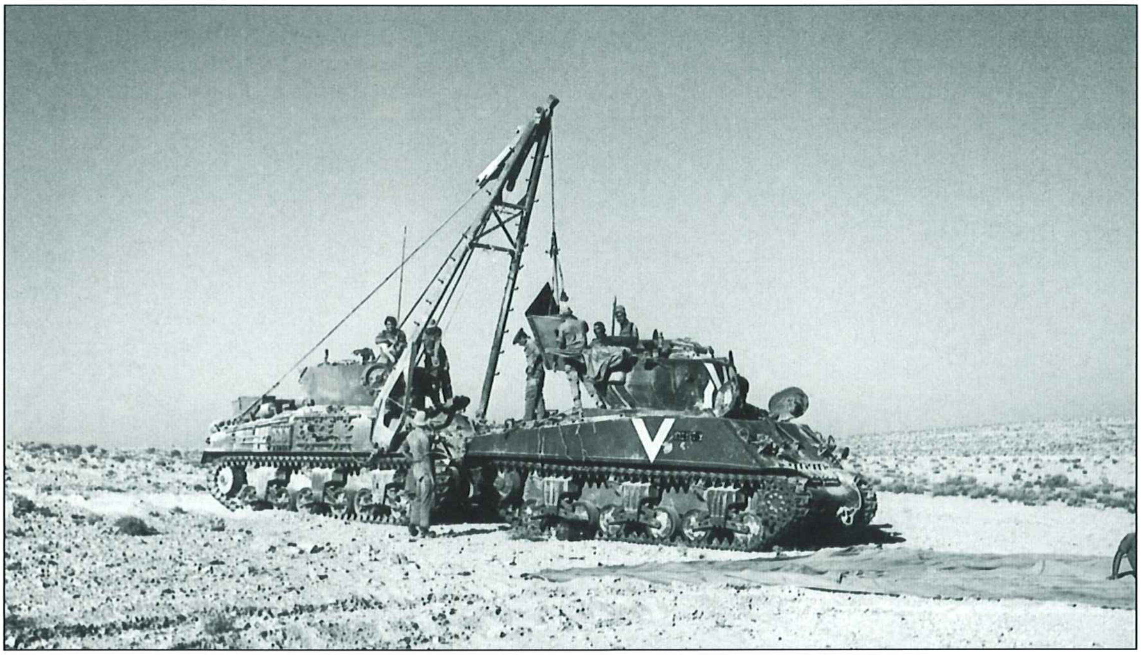
A Yugoslav UNEF detachment in their M3A1 scout car visits an outpost near the El Quseima oasis in the Sinai during peacekeeping operations in April 1959. By this stage, the vehicles have been painted in the now familiar white and blue of the UN. (United Nations)



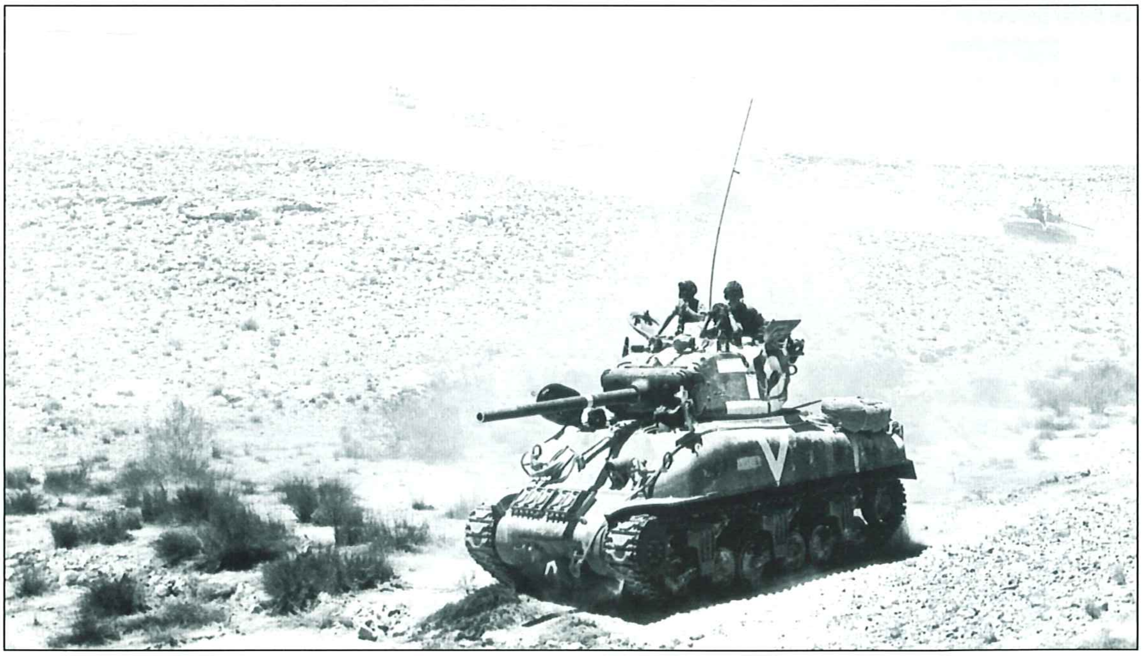
A Yugoslav M3A1 scout car of the United Nations Emergency Force (UNEF) in the Sinai in January 1957, shortly after the Israeli pull-out. These vehicles are still finished in their original Yugoslav markings, but were later repainted in UN colors. (United Nations)



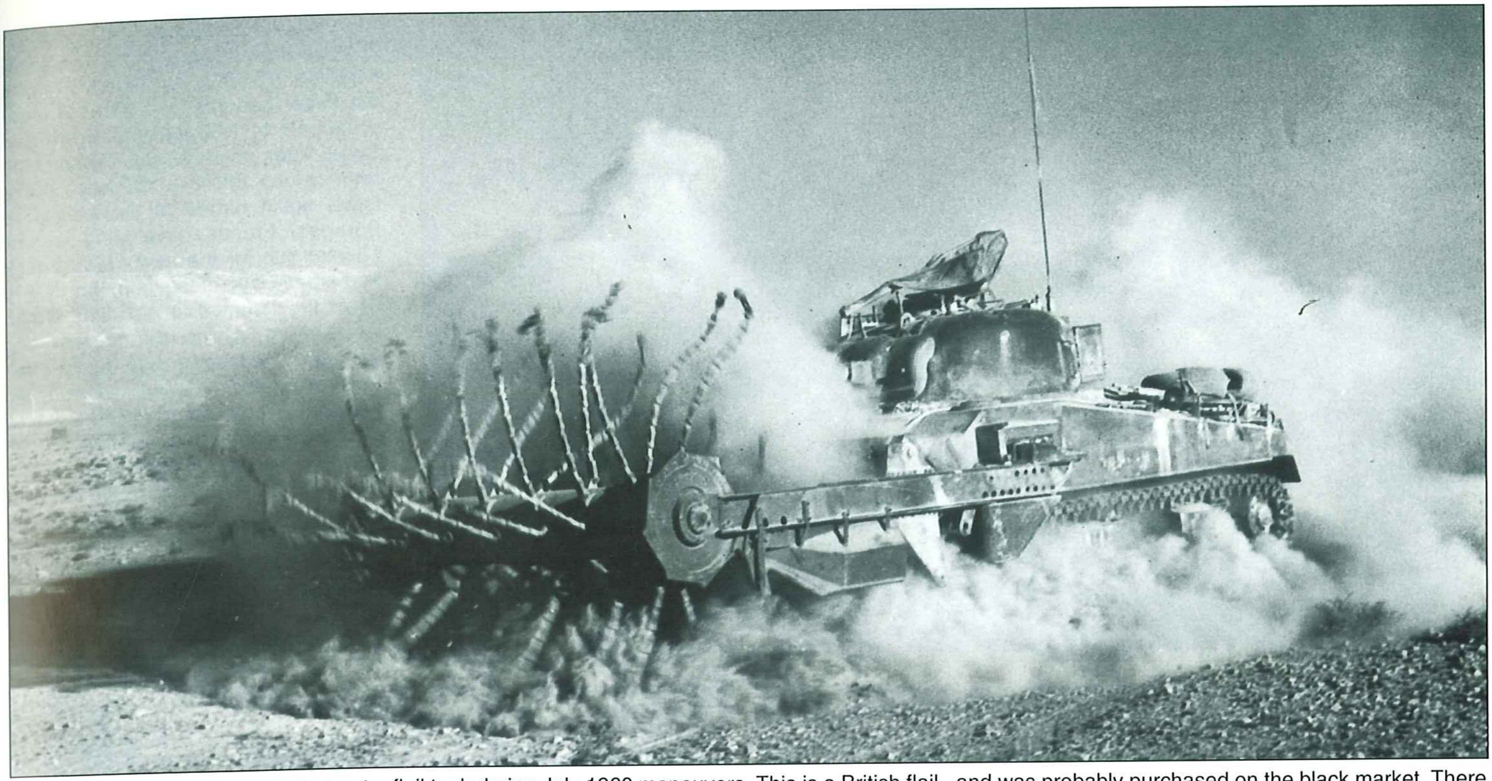
As a result of the lessons of the 1956 war, Israeli tank units began painting elaborate tank markings on their vehicles to assist in coordinating mobile operations. These "M1" Shermans are on maneuvers in 1961. The lead tank is identified as V4, and has a downward pointing battalion chevron on the hull side. On the left side of the transmission housing is a brigade insignia consisting of the Hebrew letter "sh" inside a white box. By the early 1960s, the Sherman was becoming obsolete and the Zahal began steps to up-gun them. (Israeli Government Press Office)



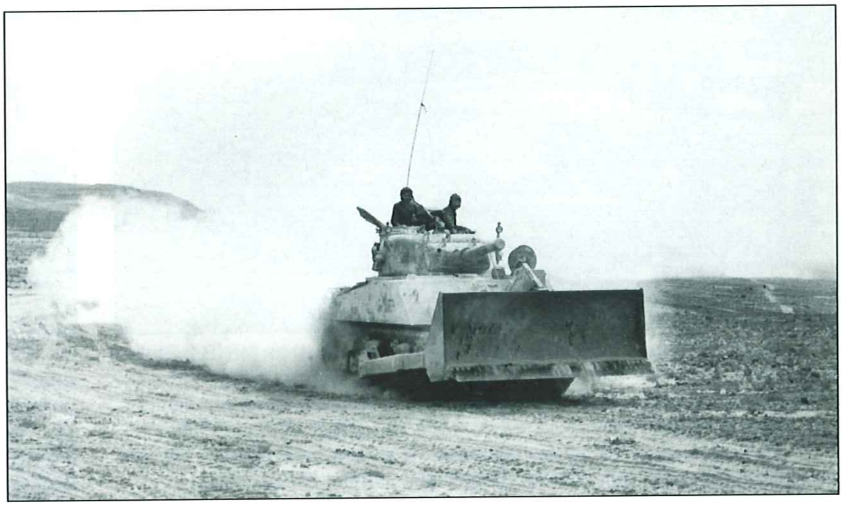
A M1 Sherman numbered A2 has repairs conducted using a M32 armored recovery vehicle during July 1961 maneuvers. The M32 was probably obtained from France, which was Israel's main arms supplier until the mid-1960s. (Israeli Government Press Office)



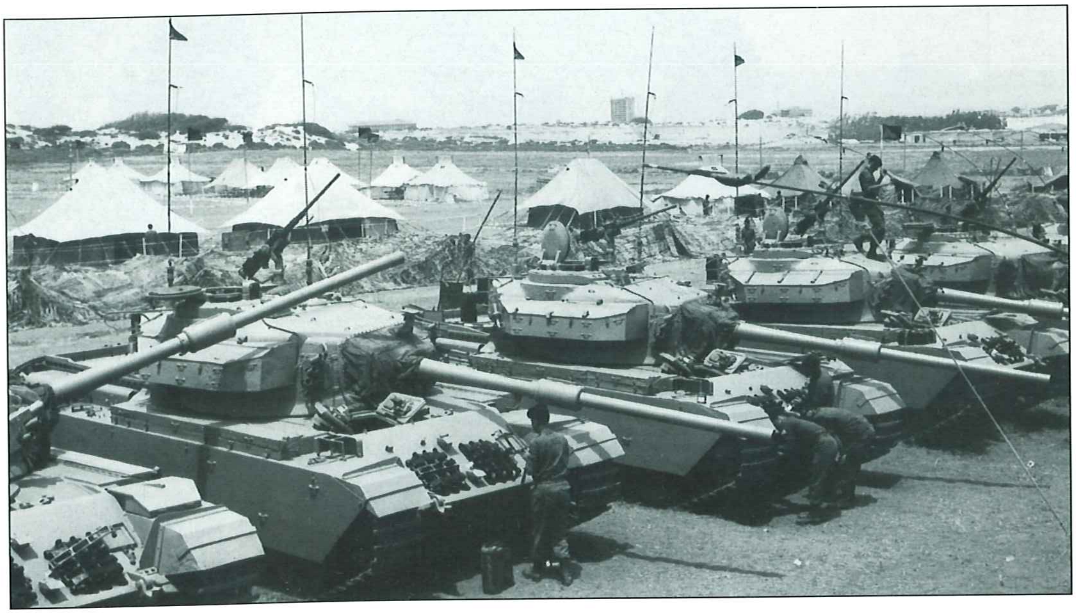
A "M1" Sherman on maneuvers in July 1961. The turret marking is the Hebrew letter for "V" probably used to identify the platoon; "V" is third letter in the Hebrew alphabet so this is probably the second tank of the 3rd platoon. Notice also that by this time, the Zahal has adopted a new tactical air identification marking consisting of a white band edged in black. This is barely evident on the top of the turret. (Israeli Government Press Office)



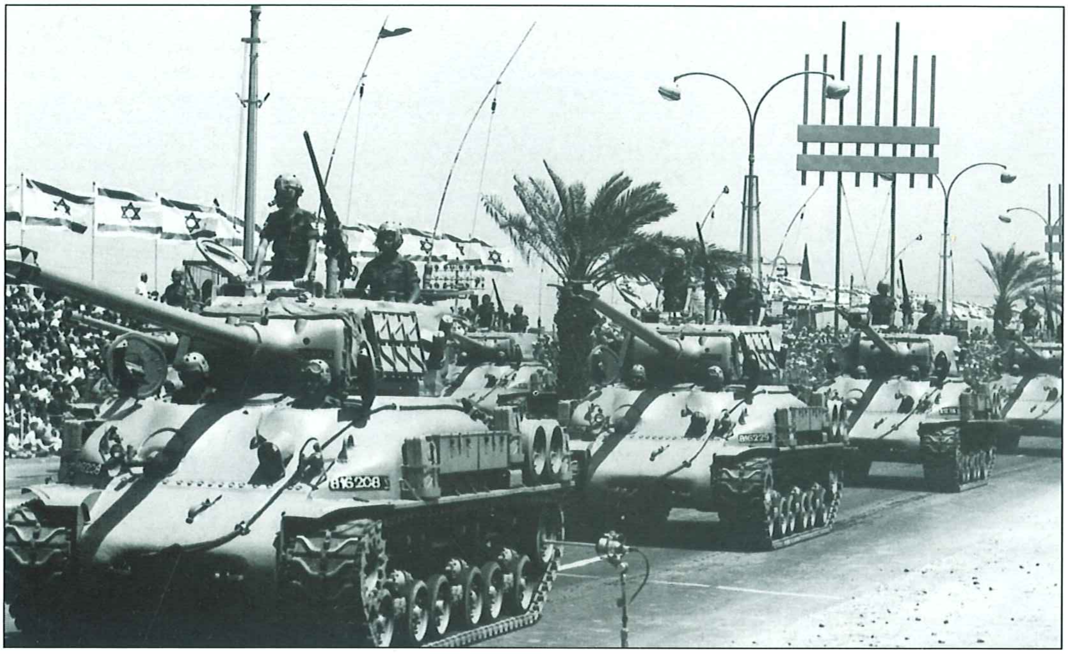
Israeli combat engineers test out a flail tank during July 1960 maneuvers. This is a British flail , and was probably purchased on the black market. There were efforts by the US, France and Britain to limit arms sales into the Mid-East through much of the 1950s, but Israel often managed to work around limits when equipment was needed. (Israeli Government Press Office)



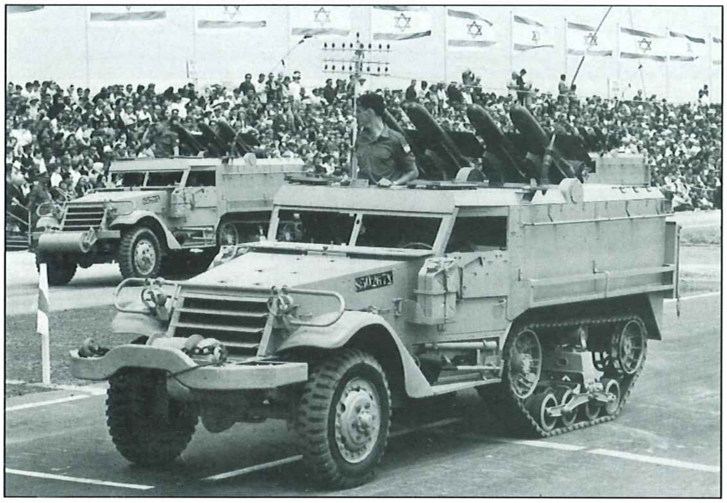
Another combat engineer tank in Israeli service was the M1 Bulldozer. As was also the US Army practice, the bulldozer is fitted to a Sherman tank with the 105mm howitzer turret. The 105mm howitzer was better suited to demolishing pillboxes and other engineer tasks than the normal 75mm or 76mm gun. (Israeli Government Press Office)



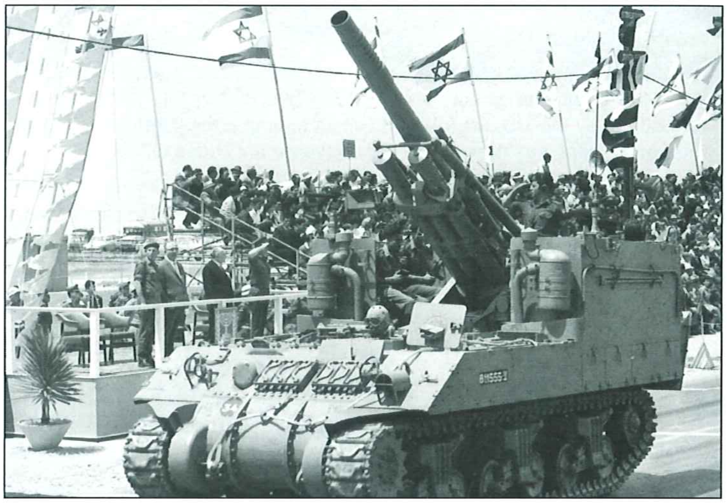
In the wake of the 1956 war, Britain finally agreed to sell Israel military equipment. The highest priority was afforded to tanks, an in December 1958, a contract was reached for the sale of 16 used Centurion Mk. V, and 14 new Centurion Mk. VIII; and a further 60 used Mk. Vs were purchased in May 1960. These were the first modern tanks in Israeli service, and are seen here in 1965 during peacetime training. (Israeli Government Press Office)



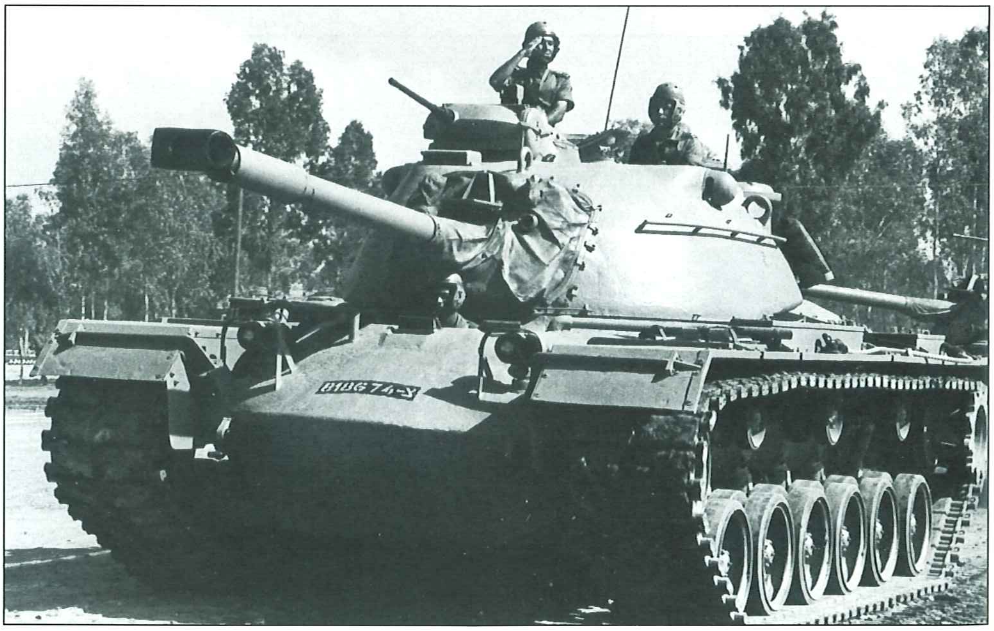
Although 100 Shermans had been upgunned with 75mm guns to counter Egyptian T-34-85s, by the early 1960s the threat had changed with the large scale sale of T-55 tanks to Egypt and Syria. After unsuccessful experiments with various British and French guns, Israel again turned to the Atelier de Bourges. France developing a new 105mm gun for the new AMX-30 tank and a derivative of this gun, the VO980 could be mounted in a T23 Sherman turret by modifying the mantlet and adding an extended rear bustle as a counterweight. About 200 old Shermans were rebuilt by the Israeli Ordnance Corps using the new French turrets, a new Cummins VT8-460 liquid-cooled 460hp diesel engine, and HVSS suspension. The resulting vehicle was named M51HV or Isherman (Israeli Sherman). (Israeli Government Press Office)



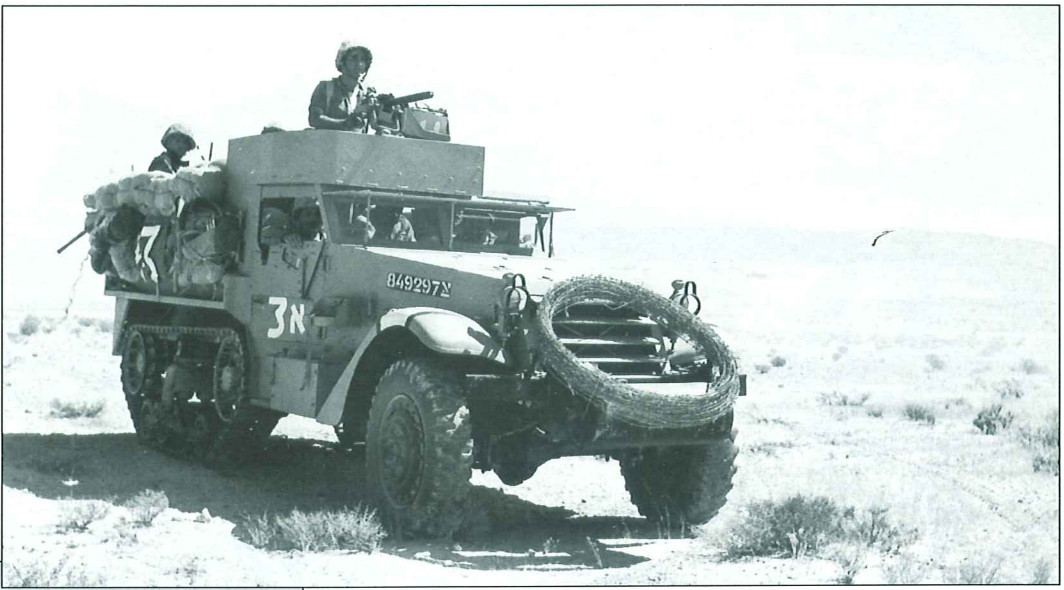
To deal with the threat of Egyptian heavy tanks such as the IS-3 Stalin, the Zahal acquired the French SS.11 wire guided anti-tank missiles. Although some were mounted on jeeps, it was felt that an armored platform would be more survivable. As a result, a special version of the M3 half-track was developed to serve as the basis for these tank destroyers. They are seen here during a 1965 parade. (Israeli Government Press Office)



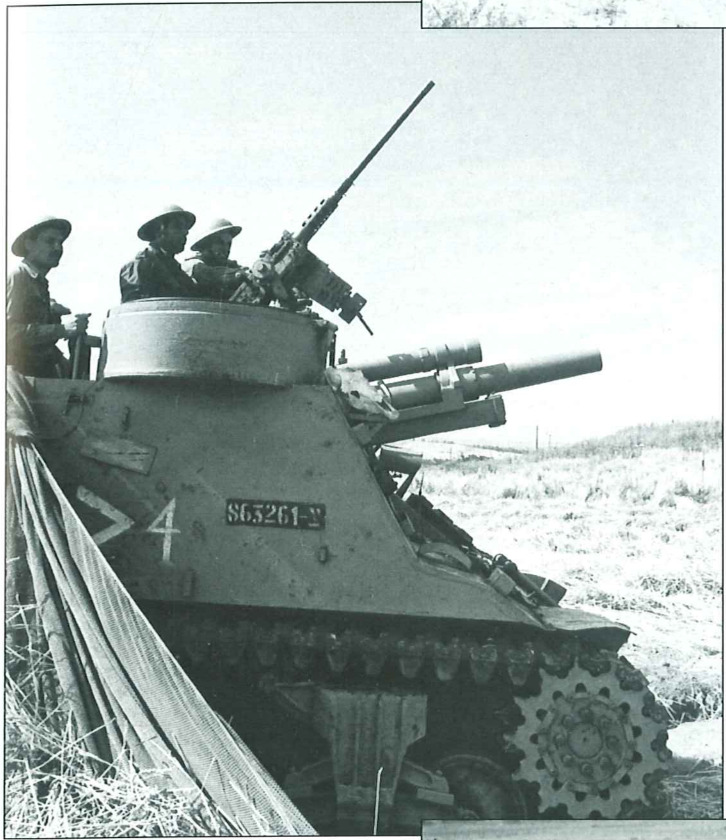
The Israeli artillery force was unhappy with the use of towed howitzers under highly mobile desert conditions, so in the early 1960s, a significant number of Sherman chassis were modified to carry the French Obusier Mle. 50. The design of this self-propelled howitzer was carried out by EFAB in France and the conversions were undertaken by the Israeli Ordnance workshops. (Israeli Government Press Office)



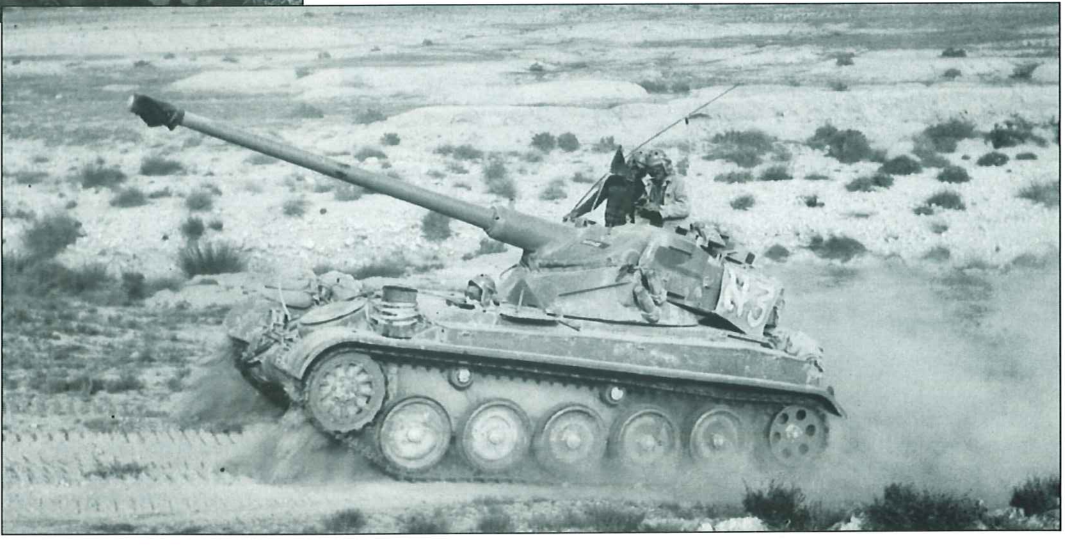
The last major addition to the Zahal arsenal prior to the 1967 war was the M48 Patton tank. The United States refused to sell tanks directly to Israel, but consented to a secret deal under which 40 Bundeswehr Pattons were clandestinely shipped to Israel. The original plan was to ship M48A1 Pattons to Italy to have them re-engined and uparmed with 105mm guns, but initially, the M48s were shipped directly. Press leaks closed the German pipeline, but the US relented and agreed to begin supplying arms directly. At the time of the 1967 war, Israel had 250 M48 tanks consisting of 40 re-engined Bundeswehr M48A1 tanks, 100 re-engined US M48A1s and 110 US M48A2Cs. Israel began rearming the M48 with British 105mm guns in 1966, but only a few were available in 1967. (Israeli Government Press Office)



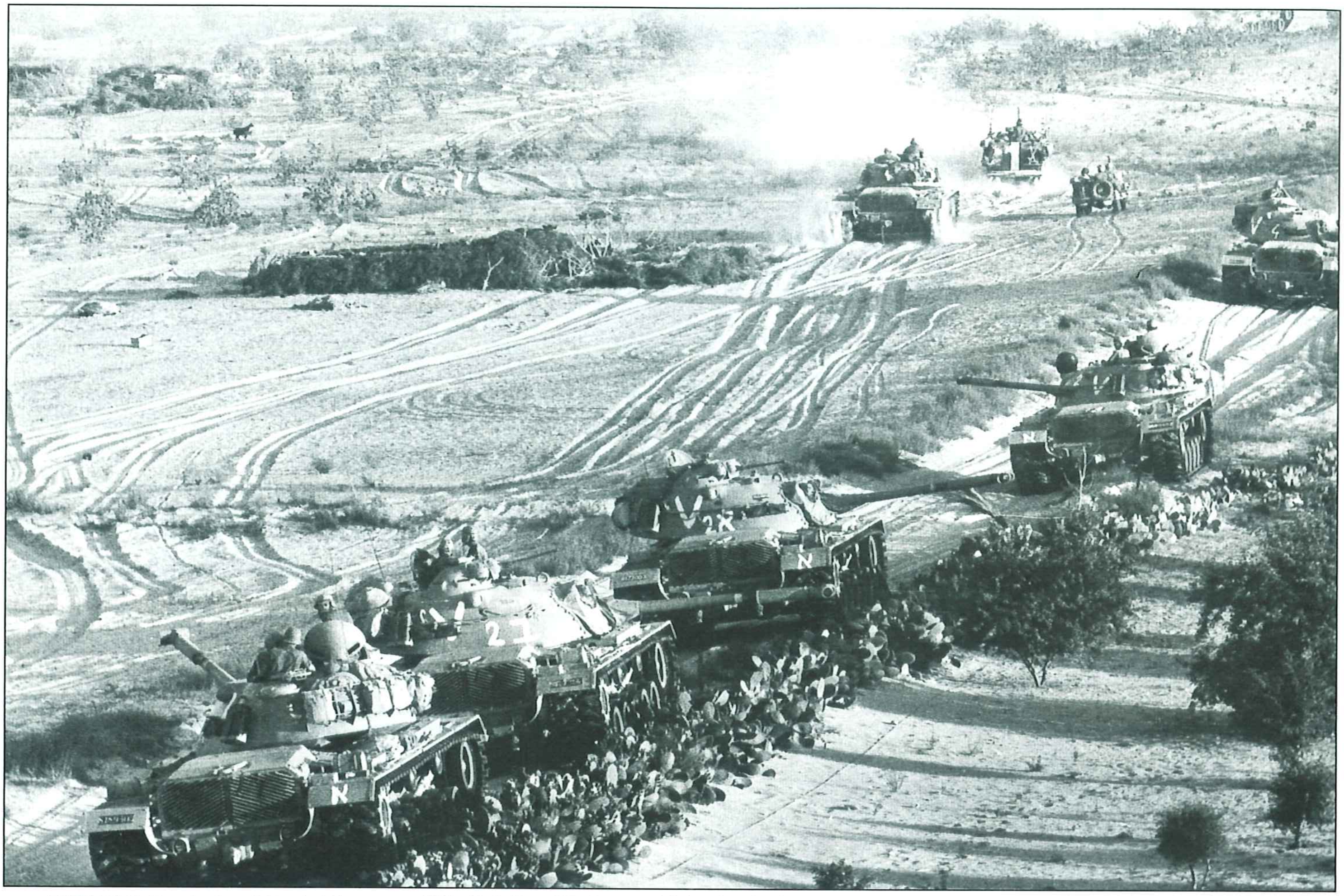
Although some countries in the region had already begun to acquire more modern armored infantry vehicles such as the M113, the Zahal continued to rely on the M3A1 half-track. This vehicle is largely unchanged from its original American configuration, and is not fitted with the usual pintle machine gun mount in front of the co-driver's station. The vehicle tactical number is 3A. (Israeli Government Press Office)



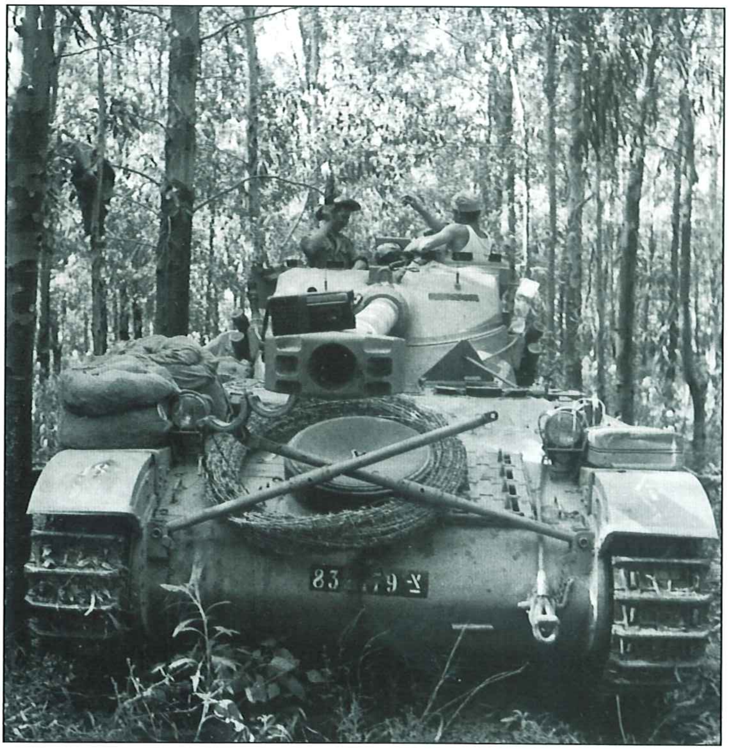
The old M7 Priest 105mm self-propelled howitzer was acquired from France in the late 1950s as a cheap expedient to flesh out Zahal's meager artillery formations. Because of Zahal's preference for mobile tactics, the bulk of its artillery force used self-propelled guns from the 1960s to the present. These artillery crews still wear old British pattern helmets. (Israeli Government Press Office)



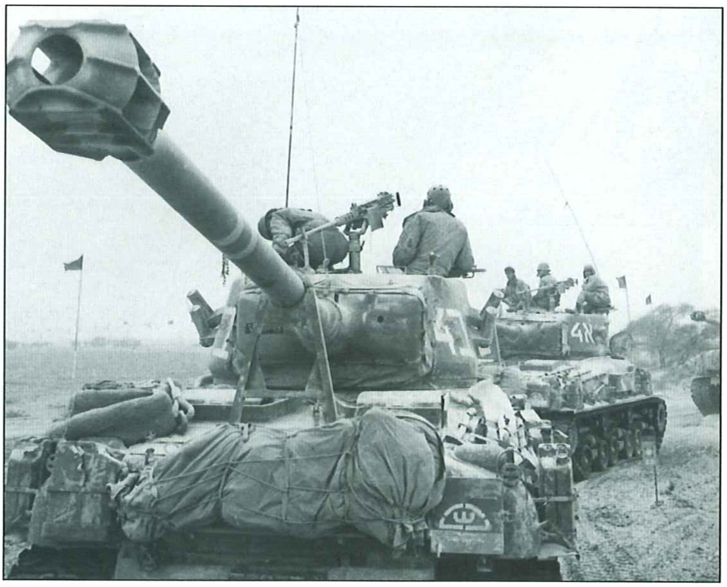
The AMX-13 light tank was still in service in some numbers during the 1967 war. Although fast and well armed, its very modest armor was its major weak point. The unusual rear turret configuration helped to inspire Israel's current Merkava tank. During the 1967 fighting, most tanks had their tactical numbers carried as a detachable canvas panel, tied to the turret sides. In this case, it is A3. (Israeli Government Press Office)



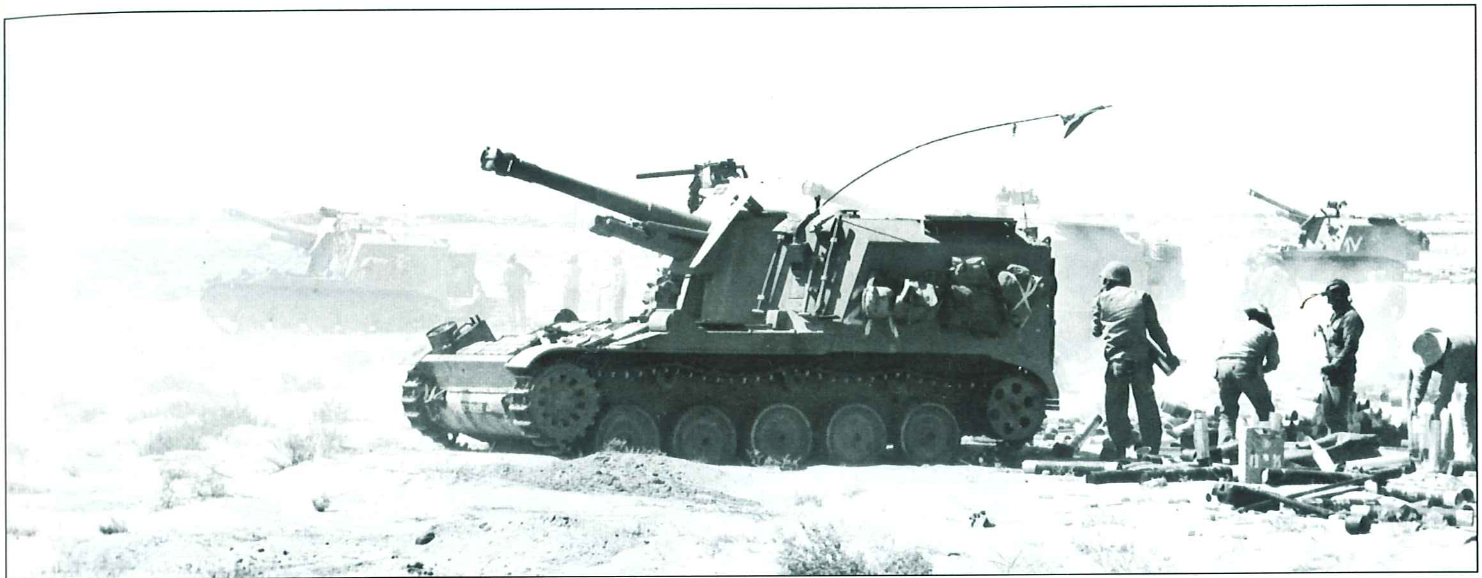
M48A2C Patton tanks of the 1st Company, 79th Battalion, 7th Armored Brigade slowly probe forward during the fighting at Rafah junction in 1967. In this case, it would appear that the tactical number on the canvas panel uses the number to identify the 2nd platoon, while the Hebrew letter identifies the individual tank. The success of this tank unit at Rafah was a critical ingredient in the 1967 Sinai victory.



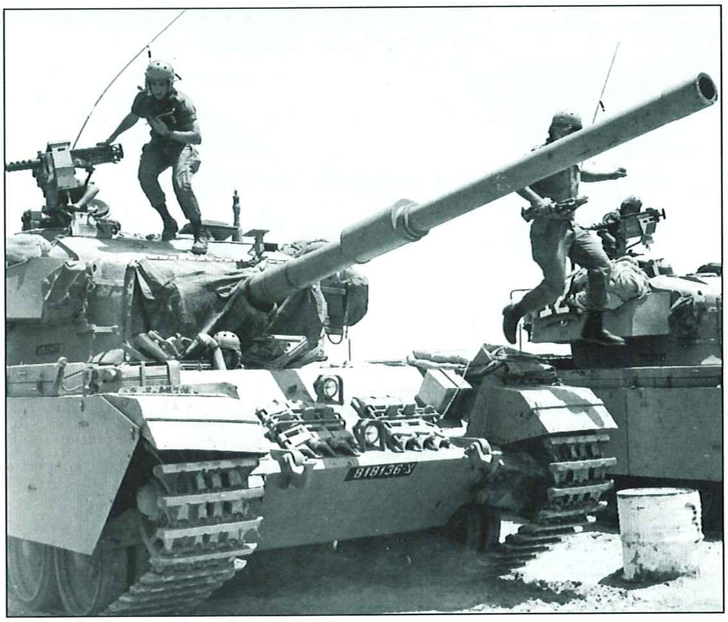
An AMX-13, resting in a grove on the Jordanian front, during the 1967 war. Barely evident on the left fender is the unit's tactical insignia, the Hebrew letter Kof in a white diamond. One battalion of these light tanks served in the Jordanian campaign, and one tank was single-handedly credited with knocking out seven Jordanian M48 Pattons. (Israeli Government Press Office)



A formation of M51HV tanks moves forward on the Sinai front serving with Col. Zippori's armored brigade. These substantially modified tanks proved adequate to handle virtually any tank in the Egyptian inventory. In the 1967 war, the majority of these served in three battalions; one in Col. M. Aviram's brigade, one in Col. M. Zippori's brigade, and one in the 10th (Harel) Brigade.(Israeli Government Press Office)

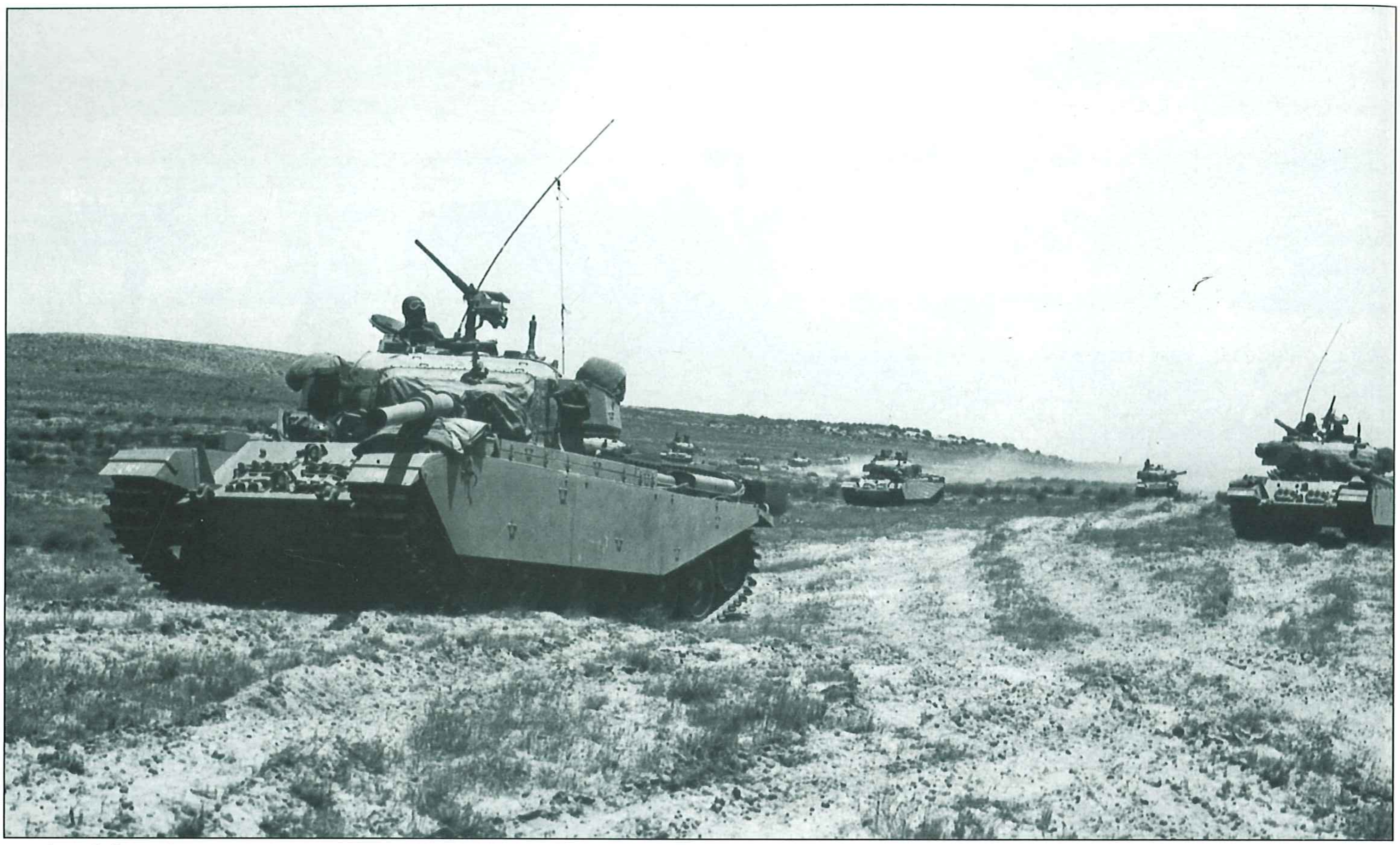


A battery of Obusier automoteur 105mm Mle. 50 support tank actions in the Sinai. These light self-propelled howitzers were based on the AMX-13 light tank chassis. About 60 were still in service during the 1967 campaign. (Israeli Government Press Office)

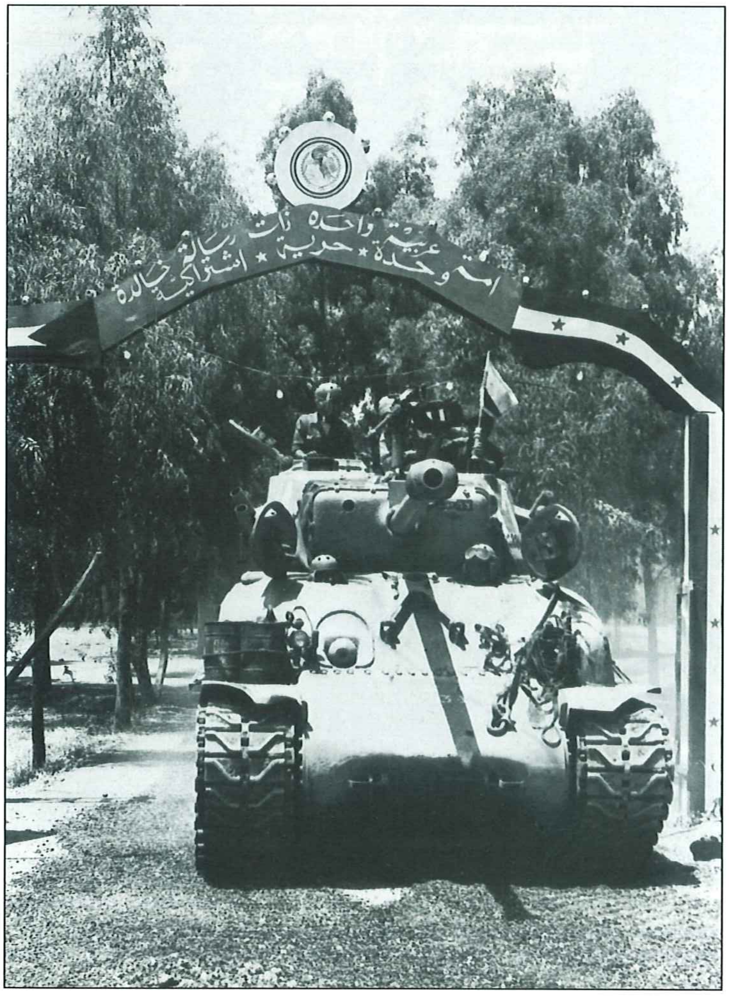


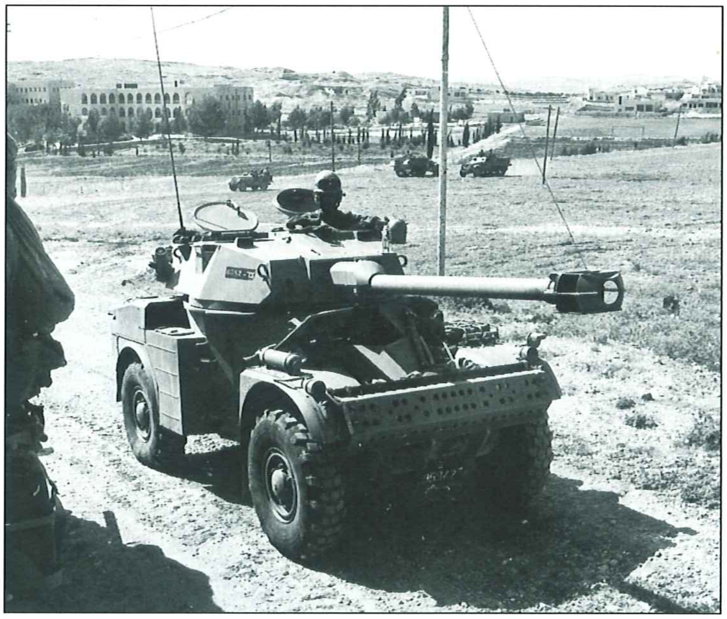
At the time that Israel began to acquire Centurions from Britain, a program was underway in Britain to up-gun older Centurions with the L7 105mm gun to enable them to deal with the Soviet T-55 and T-62 tanks. In October 1961, Britain agreed to rearm 90 Israeli Centurions, and sold 45 more Centurion Mk. Vs, rearmed with the 105mm gun in 1962. These Centurions on exercise before the war show the new gun, as well as some small Israeli modifications such as the addition of a Browning M2 .50 cal machine gun to the commander's cupola. (Israeli Government Press Office)

Israeli Centurion tanks on exercise in May 1960 prior to the outbreak of the war. The Centurion was not immediately popular in the IDF tank force due in part to its mechanical complexity and powertrain problems. Reforms introduced from 1964 when Gen. Israel Tal took command of the Armored Corps cleared up the inadequate maintenance procedures. At the time of the 1967 conflict, Israel had 385 Centurions. In 1964, Britain was approached about selling 120mm Chieftain guns to Israel to uparm a portion of the Centurion fleet, but this never transpired. (Israeli Government Press Office)



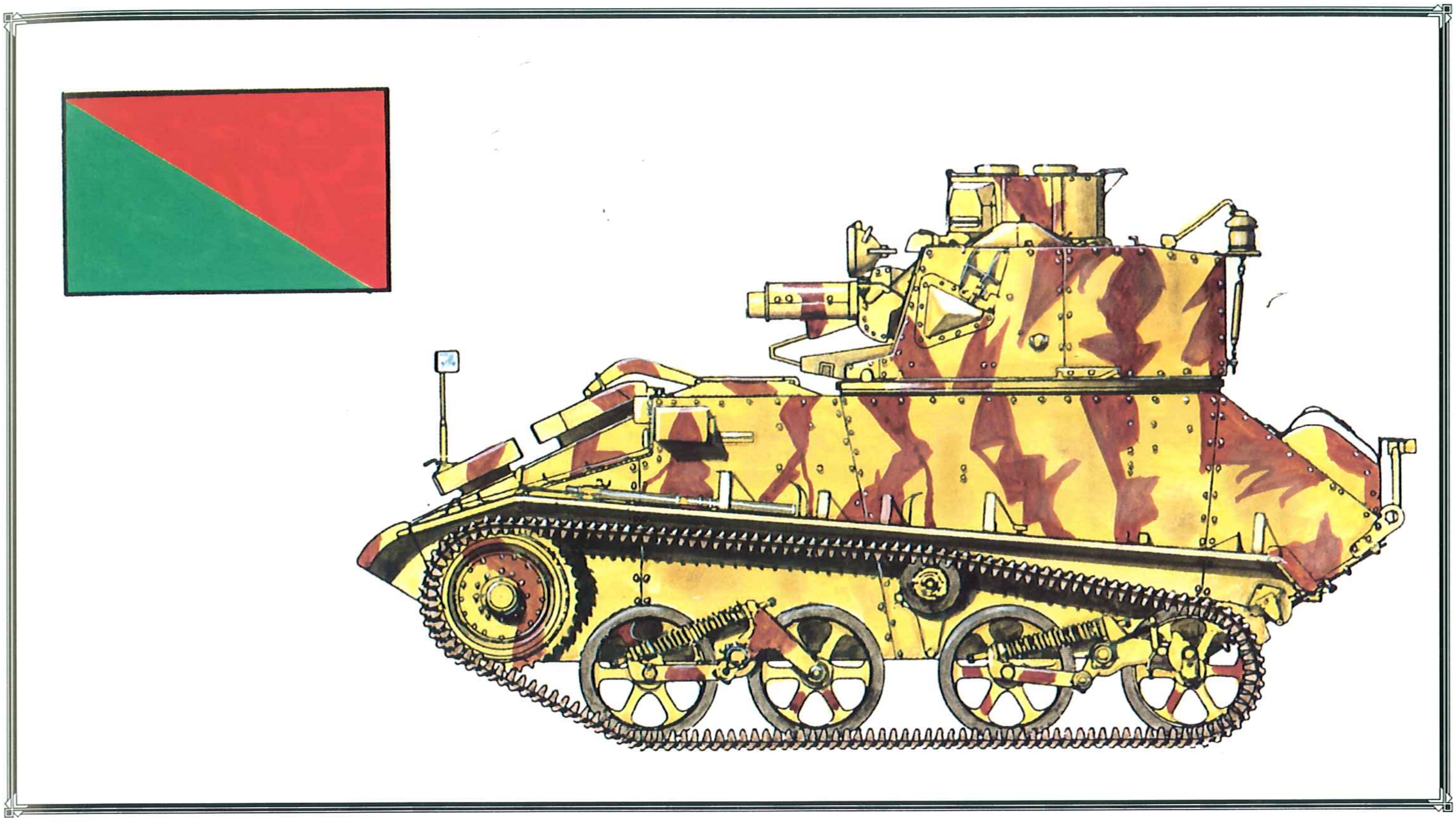
Israeli Centurions on exercise in the days before the outbreak of the 1967 war. Israel's main concern with the Centurion was the unreliable powertrain. In May 1967, the Israeli government reached agreement with the United States to sell 400 Continental AVDS-1790 diesels to re-engine the Centurions, but the first re-builds were not completed until after the war in May 1970. (Israeli Government Press Office)



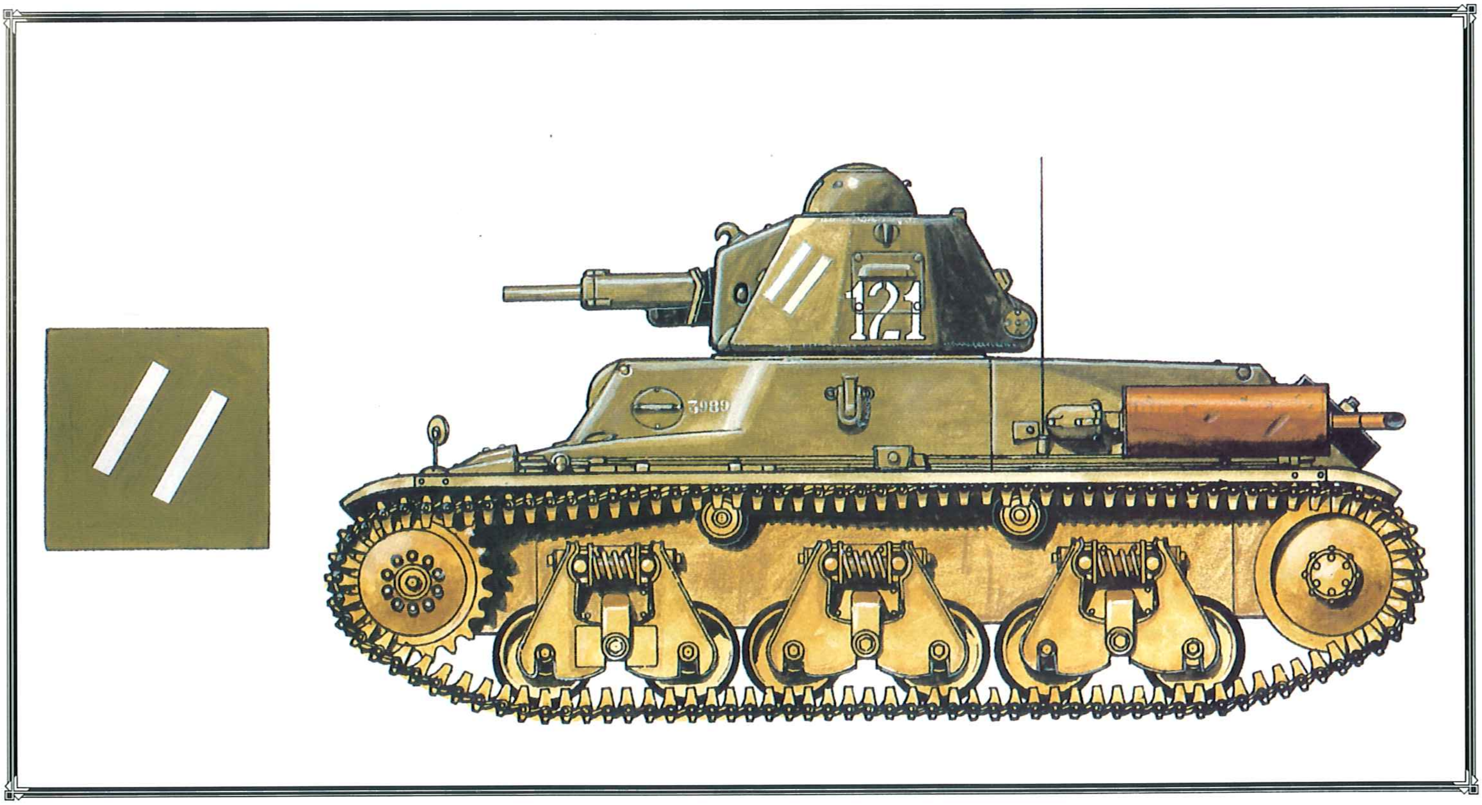


Israel was never very fond of wheeled AFVs, but purchased 14 of these Panhard AML-90s in the 1960s for trials. They were used on the Jordanian front in 1967, but no further example were acquired. (Israeli Government Press Office)

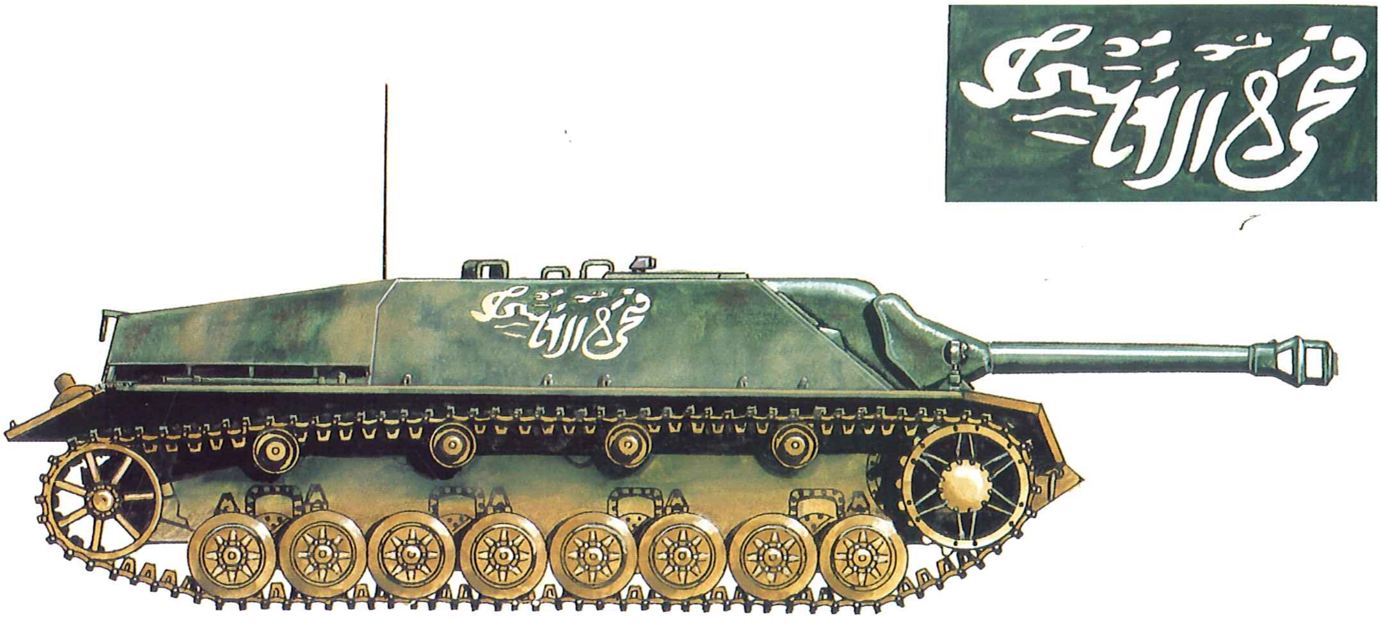
Most but not all Israeli Shermans had been re-armed by the time of the 1967 war. This M4A1 with 76mm gun operated on the Jordanian front in the 1967 war. Priority for the better-equipped units was given to the Sinai front, and older tanks tended to be allotted to infantry support missions on the Jordanian front in 1967. (Israeli Government Press Office)



Mark VIB Light Tank, Egyptian Army, Sinai Campaign, 1948.
There was very little standardization of finish in Egyptian armor in 1948, and most vehicles were left in the colors in which they originally appeared while in British service. Many tanks were painted overall in a light sand color, probably related to British Light Stone. Some of the vehicles later received a disruptive paint scheme like this Mk. VIB light tank, which received an irregular pattern of dull brick red, probably red lead anti-rust paint. A British officer recalled that the scheme faded to a distinctly "pinkish hue". Egyptian tactical markings were few, often only a single Arabic numeral, a British-style tactical geometric sign, or the green/white/red national roundel. To the left of this tank is the Egyptian Armored Force colors, sometimes carried on the turret sides during parades.

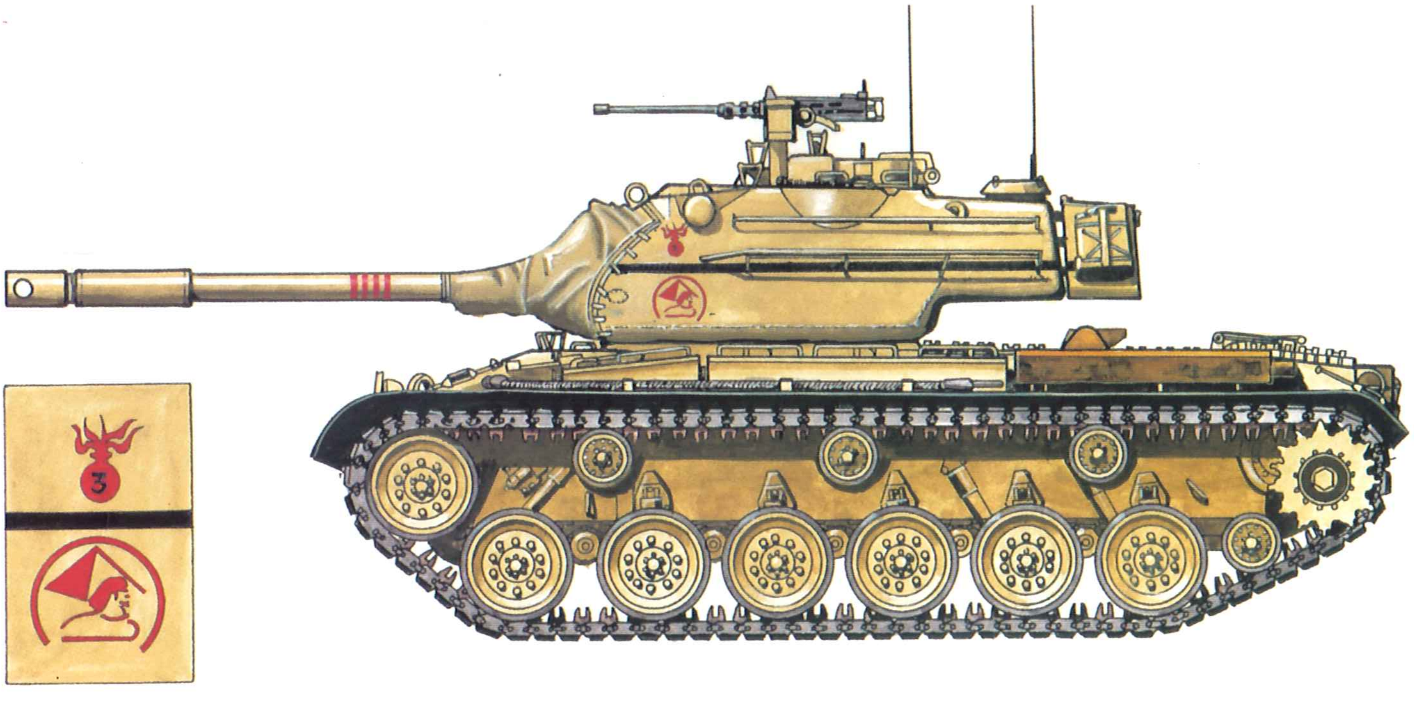


Hotchkiss 39.H Light Tank, Russian Company, 82nd Armored Battalion, Israeli Army, 1948.
The origins of this tank are uncertain and so too are its color. It was probably acquired in France, and so it is most likely that it was finished in either olive drab as shown here, or in pre-war dark green. At the time, the 82nd Armored Battalion had its own tactical marking, a pair of slanted lines painted in white. Some of the unit's vehicles also carried the insignia of Southern Command, three white arrows, but generally not the tanks. The tanks also carried a tactical number, in this case, 121. Barely evident on the side is a four digit vehicle serial, 3989.



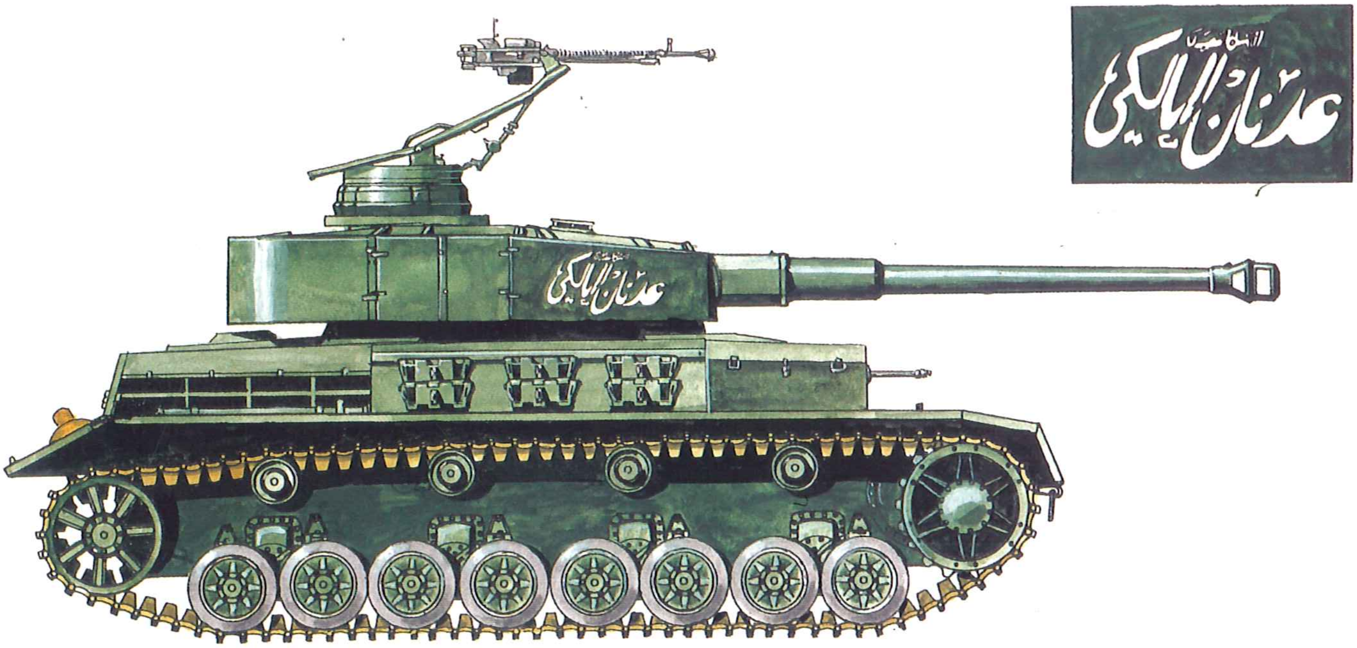
Pz.Jg. IV, Syrian Tank Regiment, 1954.

This vehicle followed much the same markings practices as the Pz.Kpfw. IV also shown here. These remained the standard Syrian markings practices through the time of the 1967 war. There were several small changes introduced due to the expansion of the force. A large white "donut" insignia about 36 inches in diameter was painted on the roof or turret of armored vehicles as a recognition sign. In addition, some Syrian armored units began to carry colored geometric tactical signs on the turret sides. At the time of the 1956 war, the Syrian tank force consisted of the 1st Armored Battalion under GHQ control at Qabun, the 2nd with Northern Command at Aleppo, and the 3rd with the Western Command at Qatana.

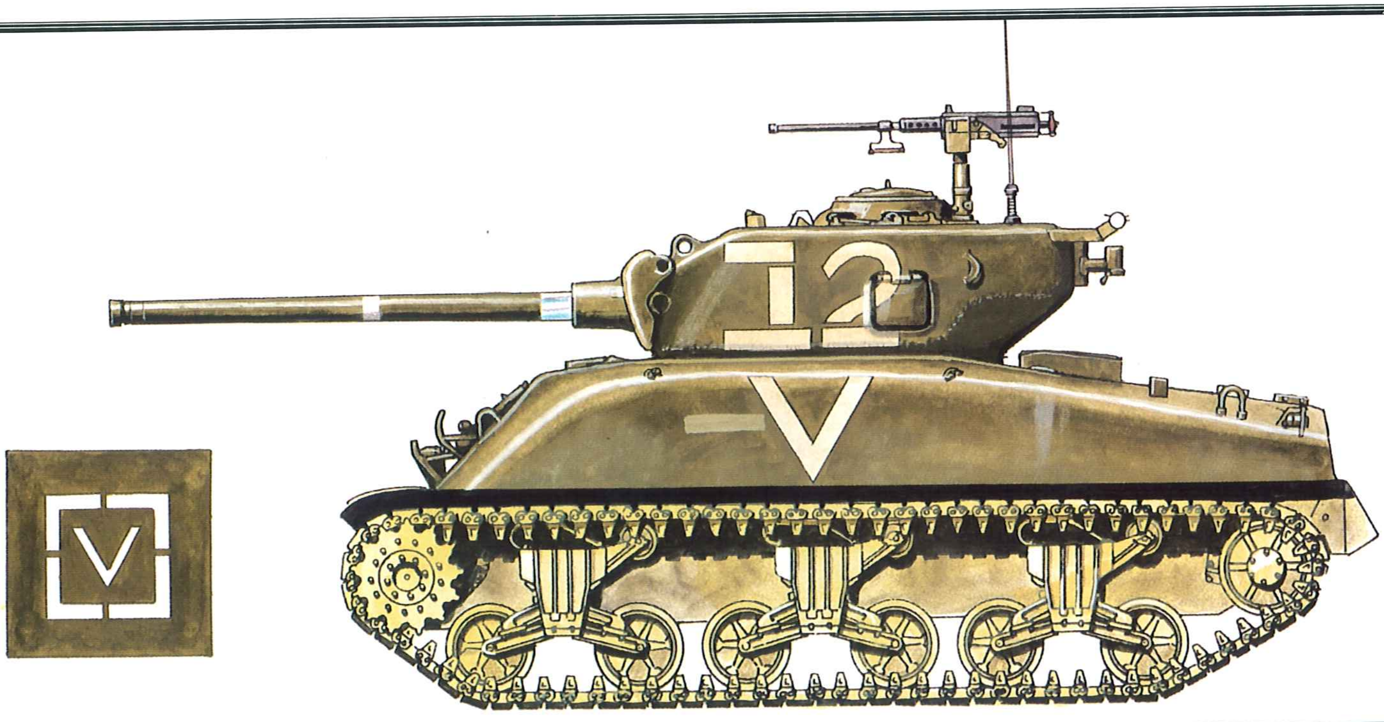


M47 Medium Tank, French 8e Regiment de Dragons, Operation Musketeer, 1956.

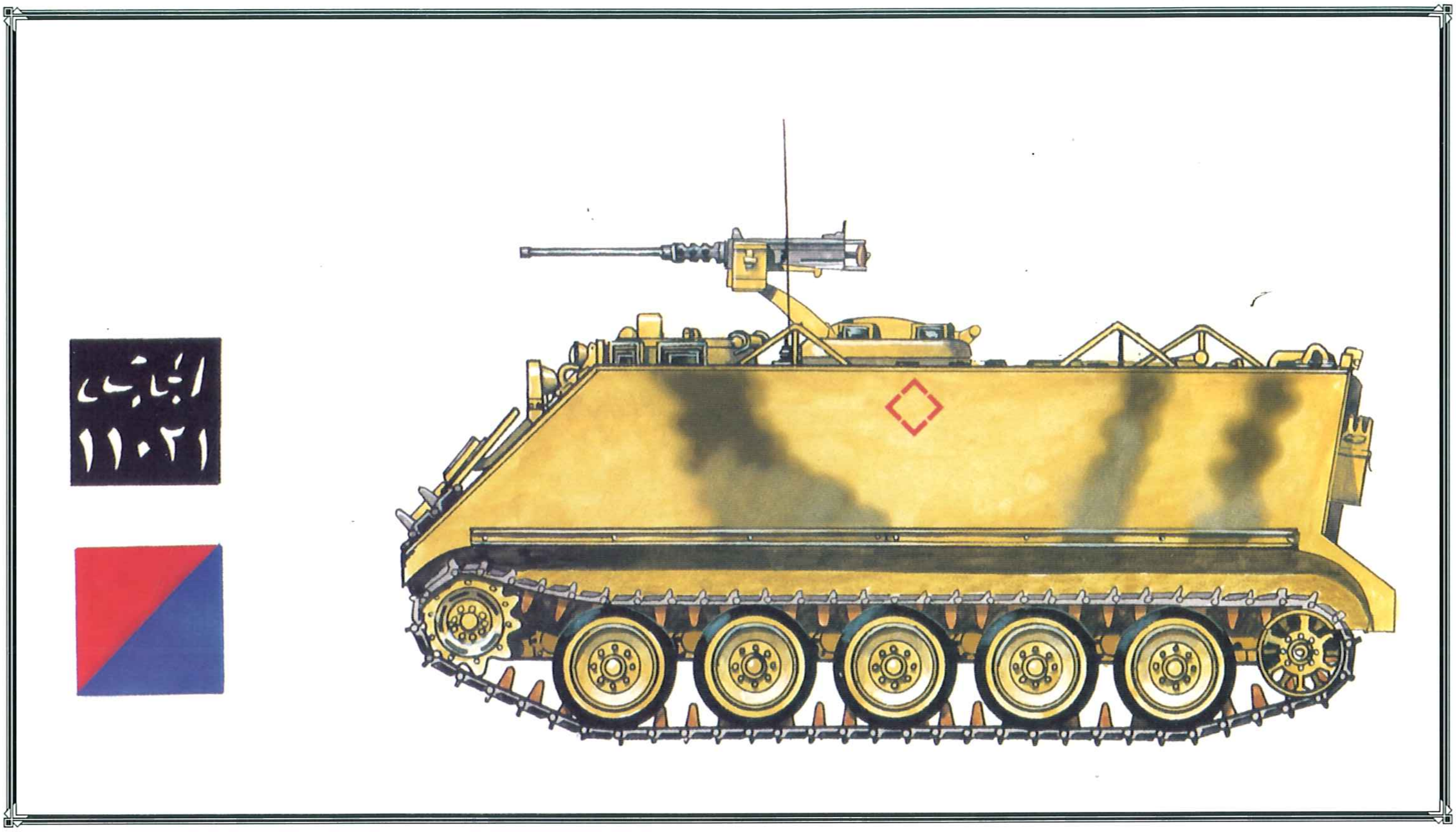
Shortly before sailing for the Suez Canal, French armor was painted in a pale sand color over the usual olive drab. Allied recognition insignia consisted of a large white H painted on the front of the turret roof for air recognition, and a black band painted around the turret for ground recognition. Other insignia consist of the traditional French flaming bomb insignia, here in red and used to indicate vehicle weight class, and below it a stylish regimental insignia added specially for the Suez operation.



PzKpfw. IV Ausf. H, Syrian Armored Regiment, 1956.
Syrian armored vehicles retained the French practice of painting their vehicles in overall dark green; this was reinforced when they began receiving armor from the Soviet Union and Czechoslovakia which was also in dark green. The Syrian practice was to name tanks after heroes of the 1948 war, with Al Shaheed (Martyr) in small characters at the top, and the hero's name in larger letters below. Some vehicles also carried a vehicle serial number, usually a five digit Arabic numeral followed by Al-Jaish (Army).

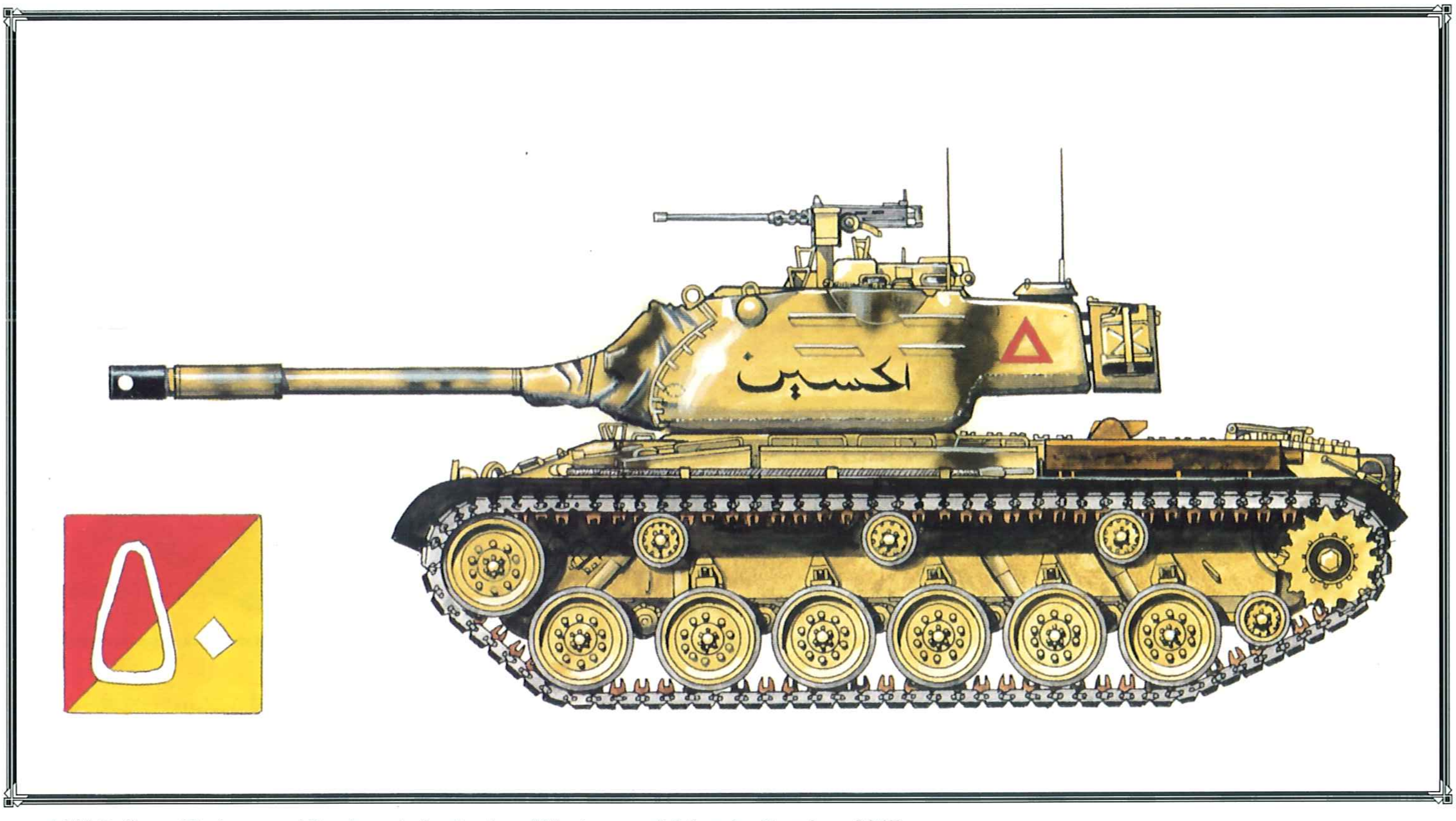


M1 Sherman, Israeli Armored Brigade, Sinai, 1961.
In the 1950s, Israeli armor was painted in overall olive drab. This was the American variety which tended towards the brown. Israeli vehicles in the 1956 war were very plainly marked, which became a hindrance when trying to coordinate platoon and company actions. As a result, a new system of markings was adopted in the early 1960s. For security reasons, this has never been explained in detail. It is believed to have consisted of an alpha-numeric platoon and vehicle tactical sign on the turret, in this case the Hebrew letter V signifying third platoon (V is the third letter in the Hebrew alphabet) and the 2 indicating second vehicle. The company was apparently indicated by the barrel bands, and the battalion by the "spinning V" insignia; it is possible that the meaning of these symbols was sometimes reversed. The direction of the V indicated the battalion. In addition, armored vehicles usually carried a tactical sign, probably identifying the brigade on the left hull front and right rear. In this case, it is a Roman V in a square, about 12 inches in height and carried on the left upper corner of the transmission housing. This tank also carried the early 1960's air identification marking, a white band about 30 inches wide with 1 inch wide black edging on either side, down along the centerline of the turret, and possible the engine deck as well.



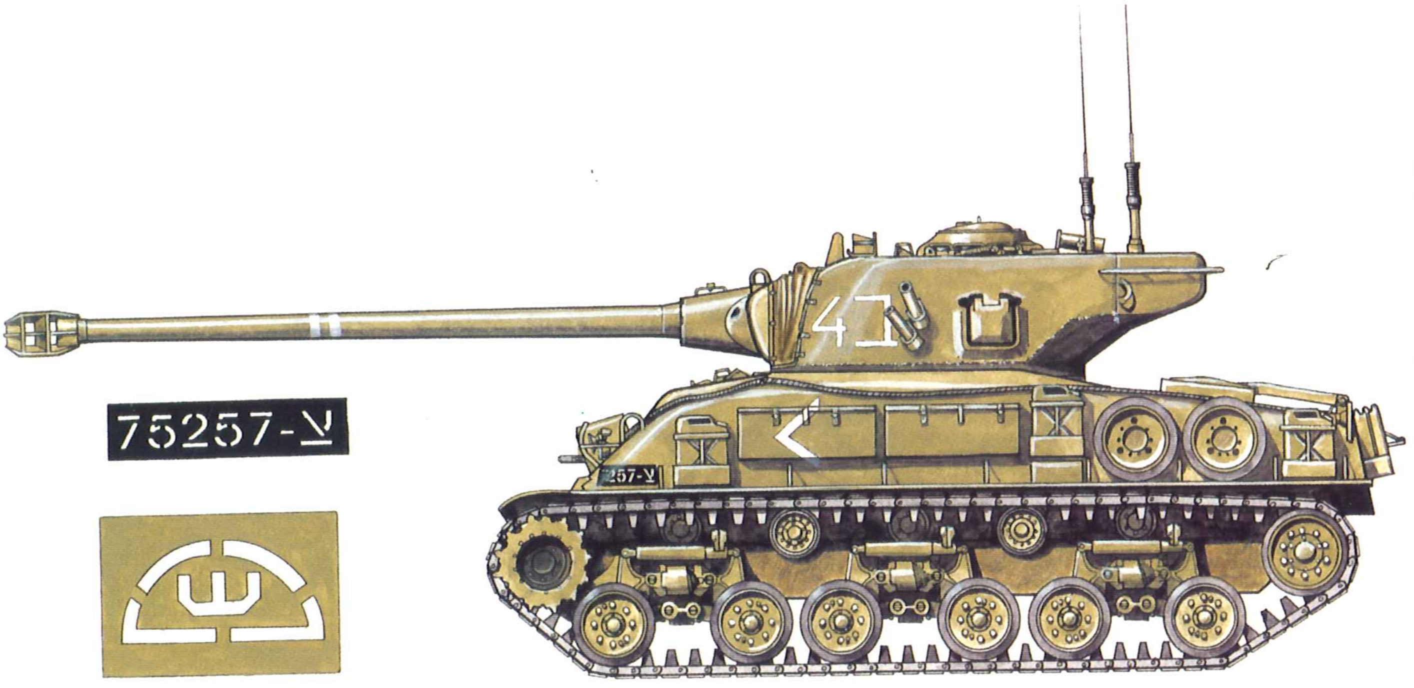
M113, 3rd Royal Guards Mechanized Battalion, Jordanian 60th Armored Brigade, Jericho, 1967.

Jordanian armored vehicles in 1967 were mainly painted in US 34087 Sand Yellow with a disruptive pattern of 24087 Olive Drab. The Royal Jordanian Army followed British markings practices, and used geometric shapes for squadron insignia. A brigade flash was carried on the right front fender, in this case the red/blue of the 60th Armored Brigade. On the left fender was the vehicle serial plate, a black square with Al -Jaish (Army) on top, and a four digit Arabic numeral below. These insignia were repeated on the rear. In the case of vehicles like the M113 that lacked fenders, the markings were located immediately above the track-guards. The markings were usually about 12 inches square.

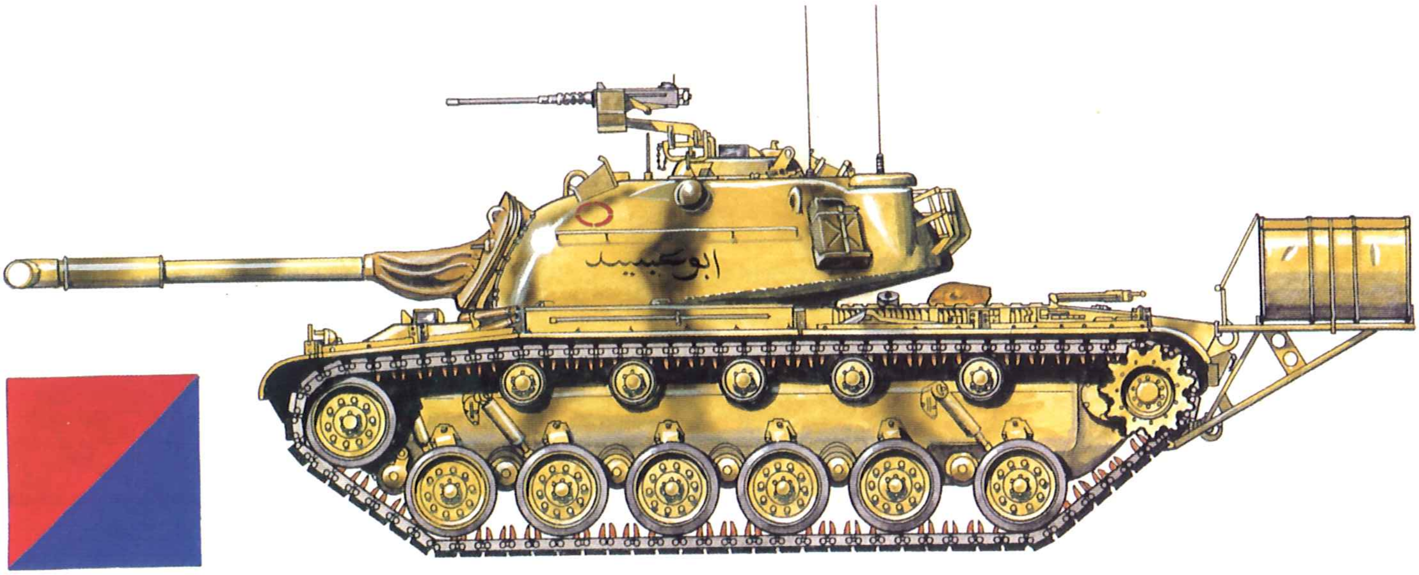


M47 Patton, 4th Armored Regiment, Jordanian 40th Armored Brigade, Damiya, 1967.

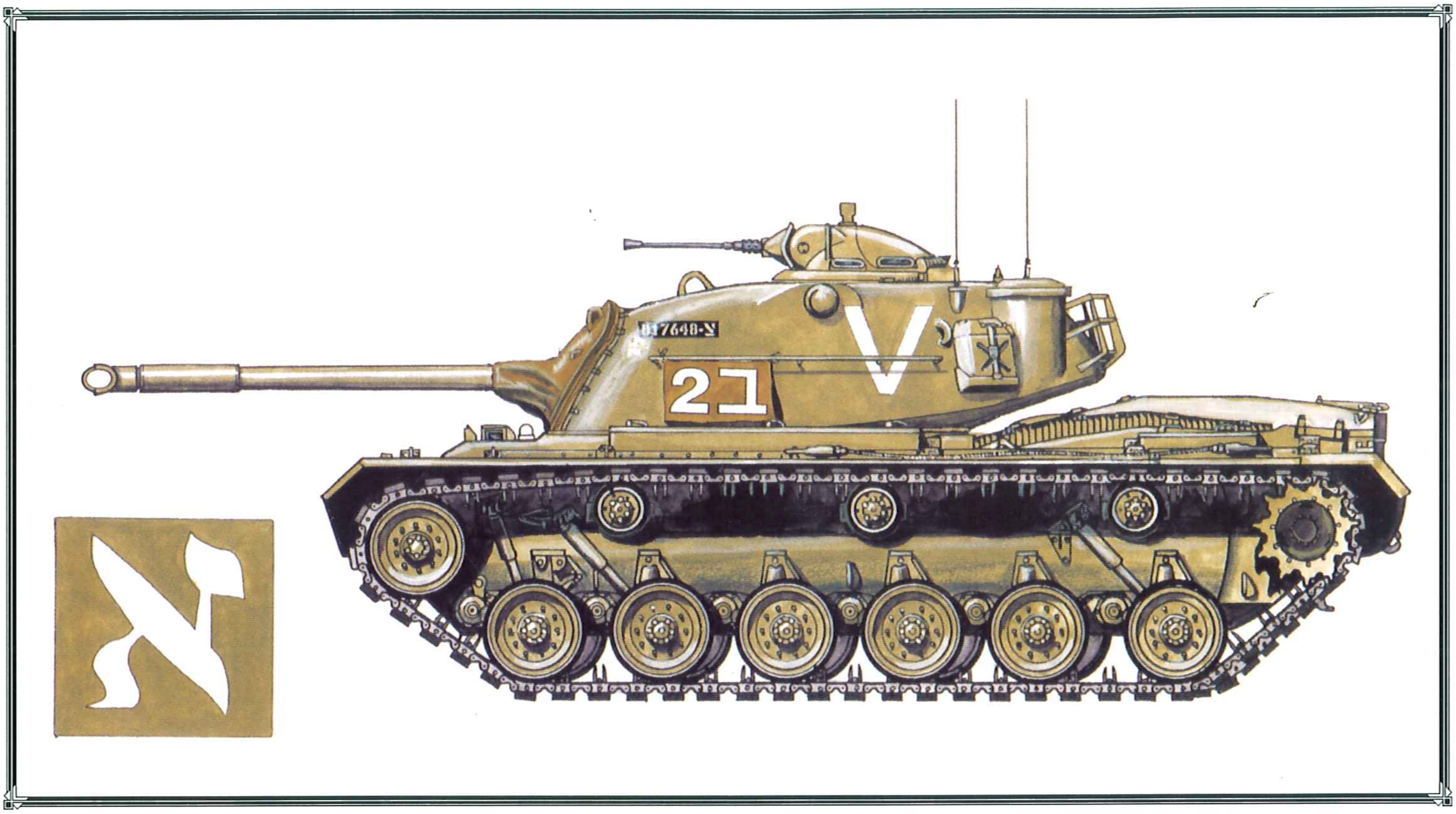
This M47 is finished in the same colors as the M113 also shown here. Tanks generally carried an honorific name, in this case *Al-Hussein*, painted in black on the turret side. The 40th Armored Brigade's flash was red/yellow as shown in the inset drawing here. For some reason during at least one parade, the Arabic numeral 50 was painted on the flash. This may have been an attempt at disinformation, as Jordan's two Patton armored brigades at the time were the 40th and 60th.



M51HV, Zippori Brigade, Ugdat Sharon, Sinai, 1967.
In the early 1960s, the Israeli armed forces switched vehicle colors from the previous olive drab to a new grey drab color. This was selected as a compromise, as the olive drab color was too dark for operation in the Sinai, while a light sand color was unsuitable on the Golan Heights or in Jordan. This has no immediate European or American equivalents and seems to have been created by mixing a medium gray and raw umber pigment. Tactical markings are in white consisting of 4V on the turret, two company bands on the barrel and a forward pointing battalion chevron. The brigade marking was a Hebrew "sh" in a half-circle, possible a reference to the Ugdat commander, Ariel Sharon. This insignia, about 12 inches wide, was carried on the upper left corner of the transmission housing, and repeated above the right rear fender. With the new color scheme, Israeli vehicle serials were painted on a black rectangle, preceded (reading right to left) with the Hebrew letter tsadi, the first letter in the word Zahal (Israeli Defense Forces).

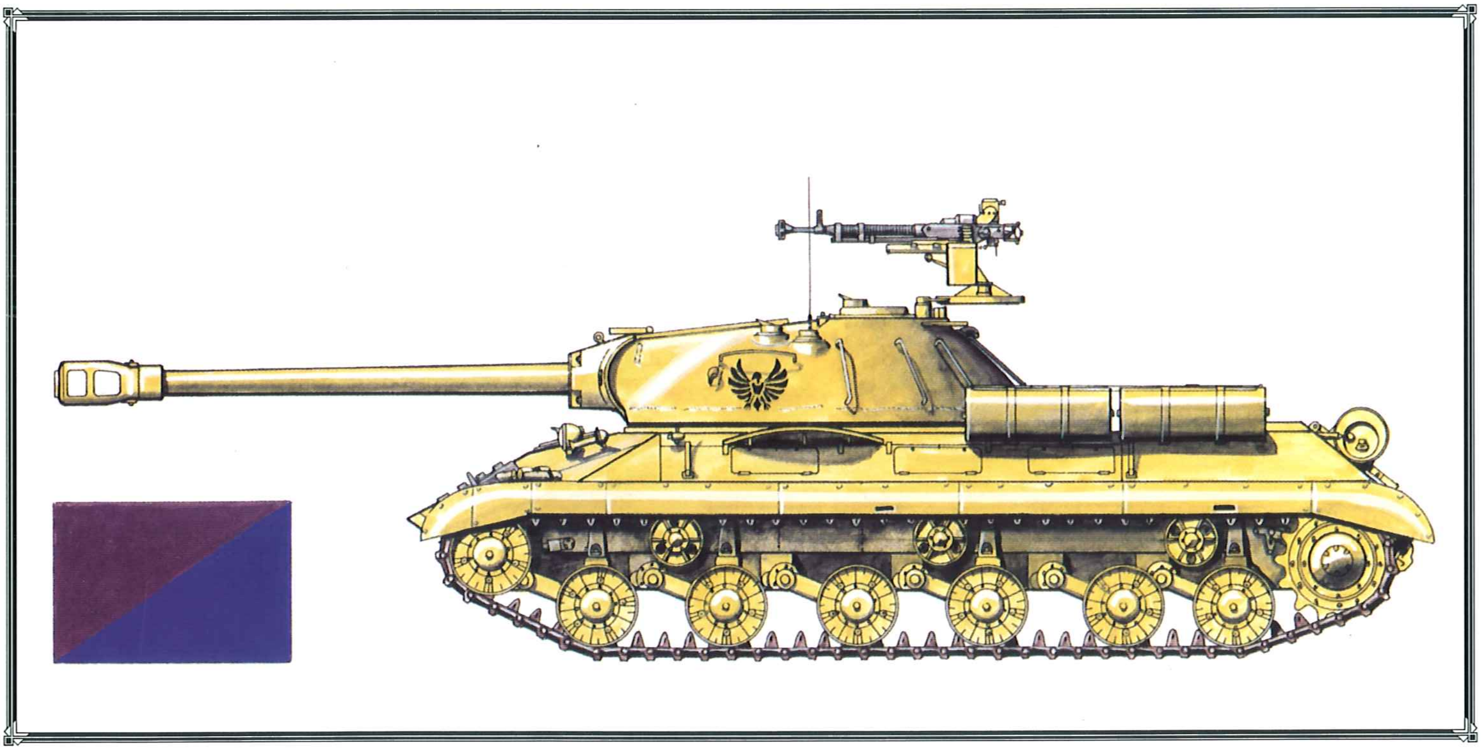


M48 Patton, 3rd Armored Regiment, Jordanian 60th Armored Brigade, Jericho, 1967.
This Patton carried the standard camouflage and markings of the Royal Jordanian Army. The brigade flash was red/blue and carried on the left front fender, repeated in the rear on the right fender. The traditional insignia of this regiment was the scorpion, and this marking sometimes cropped up on battalion vehicles though not in this case. The red circle indicates C Squadron, and the vehicle name is Abu Abaida, a 7th Century warrior hero.



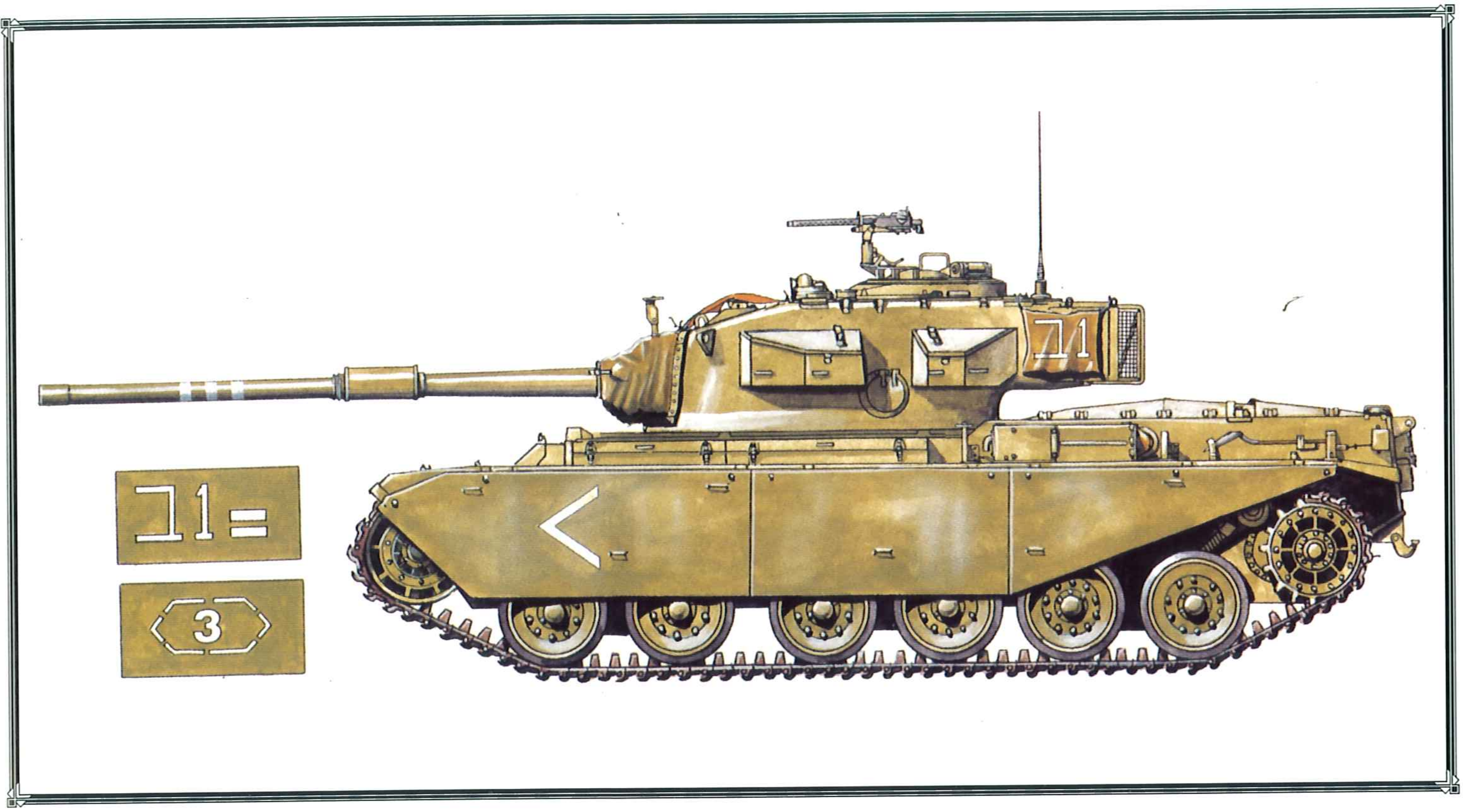
M48A2C Patton, 79th Battalion, Israeli 7th Armored Brigade, Rafah Junction, 1967.

During the 1967 fighting, most Israeli tanks had the vehicle/platoon tactical marking attached by means of a canvas panel, since crews were not permanently assigned individual tanks. In this case, the tactical marking is 2V. Tanks of this unit had the Hebrew letter *aleph* painted on the left front fender and right rear fender, possibly as a unit marking. This is shown in detail in the inset drawing. Besides the basic vehicle serial carried centrally on the bow, many tanks had one or more additional serials painted on, usually including one on the turret. This number usually differed from the hull number and was probably a logistics number for turret repairs.



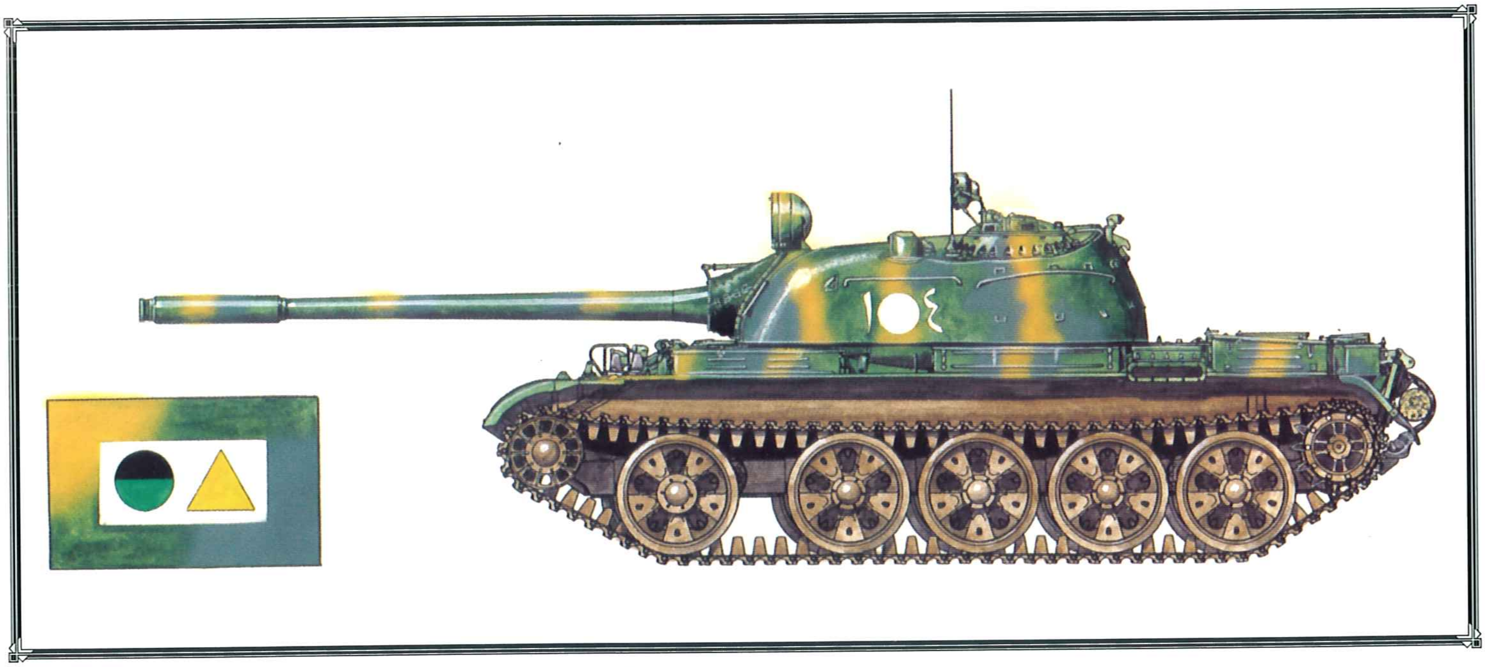
IS-3M Stalin, Egyptian 125th Armored Brigade, 6th Mechanized Division.

During parades in Cairo, Egyptian tank regiments were frequently assigned colorful tactical insignia, including this imperial vulture on IS-3M Stalin tanks. However, when deployed in the field, these markings were usually painted over. Egypt adopted a set of colored flash insignia based roughly on British practices. The IS-3/ISU-152 heavy regiments carried a violet/blue flash. Some IS-3Ms in the Sinai fighting carried this insignia, but those encountered during the Rafah Junction fighting were entirely plain without any markings. Egyptian armor in the 1967 war was almost uniformly painted in a light stone color.



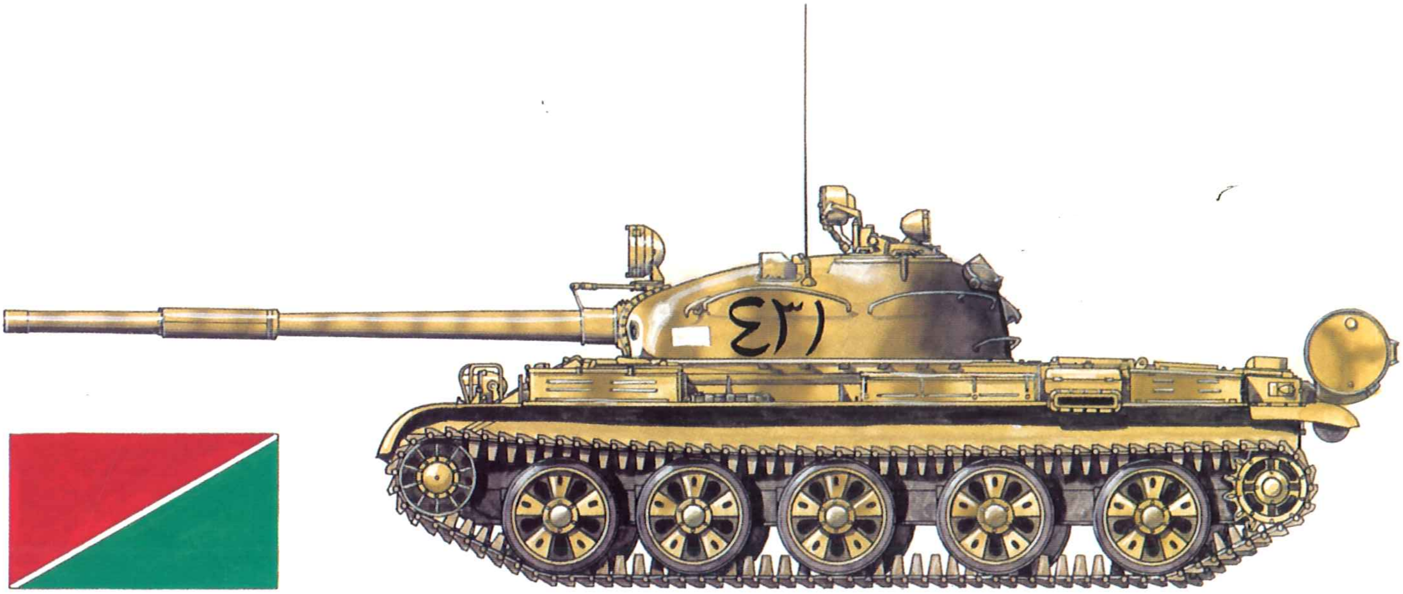
Centurion Shot, Israeli 7th Armored Brigade, Golan Heights, October 1973.

During the 1973 war, the Israeli tank force retained many of the same markings practices as in the 1967 war. The vehicle tactical number, in this case, V1, is carried on a canvas panel attached to the rear side of the turret. The battalion chevron is on the side skirts. The vehicle tactical number is repeated on the right front fender as shown in the upper inset drawing; the significance of the two bars next to it are not known. On the left fender is a geometric tactical sign. It is possible that each brigade had a symbol, with the battalion number painted inside, however this is only speculation. On the barrel are three company stripes. There is an orange air identification panel on the front of the turret roof.



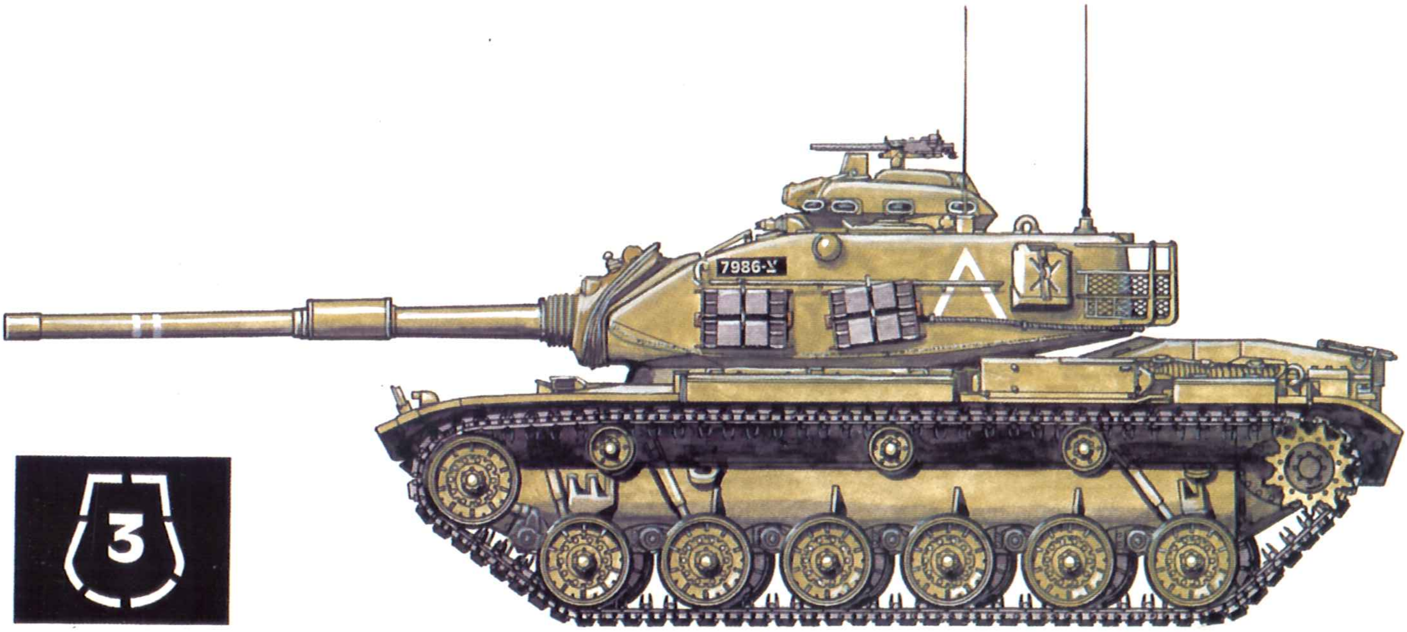
T-55, Syrian Tank Regiment, Golan Heights, October 1973.

At the time of the 1973 war, Syria had adopted a new camouflage scheme consisting of patches of earth yellow and medium gray over the usual Soviet dark green. The gray shade was very close in tone to the green, and so often doesn't show up well in photos. Vehicles usually carried a three digit Arabic number on the turret side, probably following Soviet numbering practices. In this case, the central symbol is a geometric sign, which may be a throw back to the pre-1973 markings, or peculiar to this regiment. Around 1970, the Syrian Army adopted a complex set of small tactical markings, sometimes dubbed "envelope" markings since they are painted on a rectangular white rectangle, or inside a rectangular white outline. In the case of divisions, there are two symbols, presumably the division/brigade on the left and the regiment on the right. No unclassified description of these markings has emerged, but it would appear that a circle on the right indicated a mechanized infantry or tank division and the colors identified the brigade, while a triangle on the left indicated a tank regiment with the color identifying the specific unit. The pattern of colors for each of the Syrian units has not yet been identified. In some cases, a five digit Arabic vehicle serial number was painted above the rectangle, often followed by Al-Jaish (Army) in Arabic.



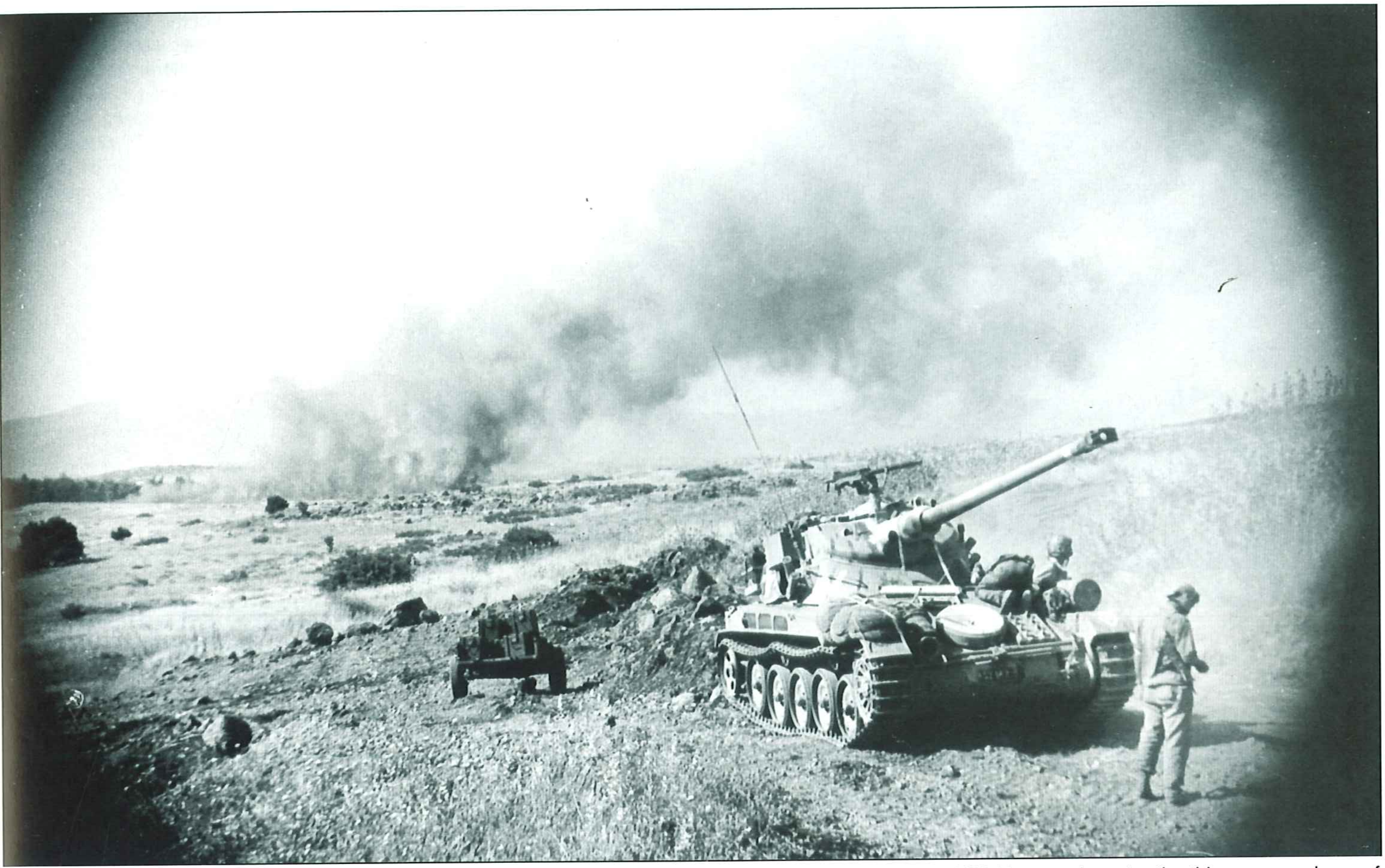
T-62, Tank Brigade, Egyptian 3rd Army, October 1973.

The Egyptian Army had no single consistent camouflage scheme in 1973. Most vehicles were painted overall in a pale Light Stone color, but the disruptive colors varied. The most common appears to have been a pale field drab as seen here, but others used a darker gray or other colors. This vehicle is numbered in typical fashion as 431. There is a small white rectangle in front of it. It is not clear if this is a tactical insignia, or if the more traditional two-color regimental flash insignia has been painted out. After the war, T-62s on parade often wore the Egyptian Armored Force red/green flash, sometimes with a white divider as shown here.

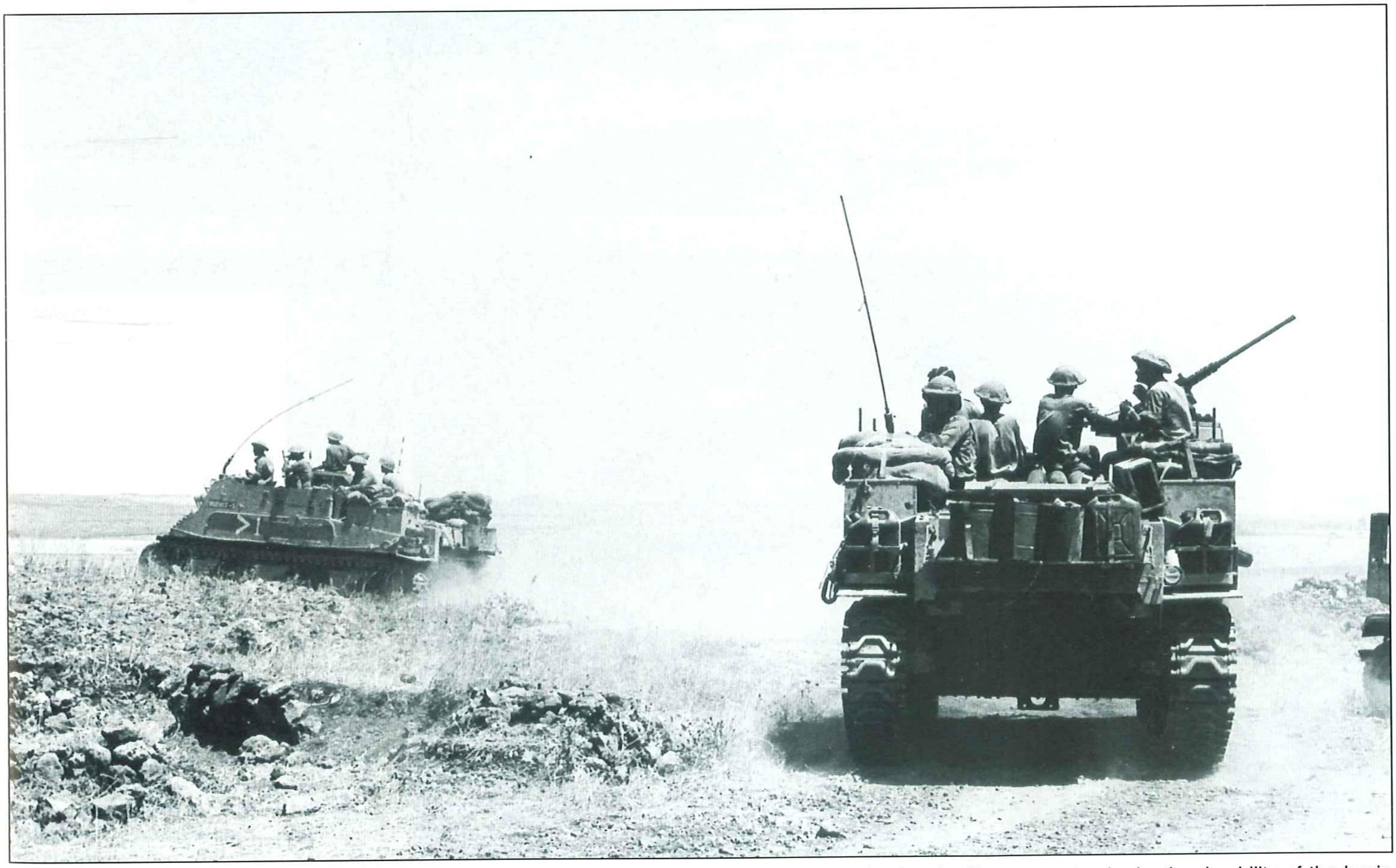


M60A1, Israeli Armored Brigade, West Bank of the Suez, October 1973.

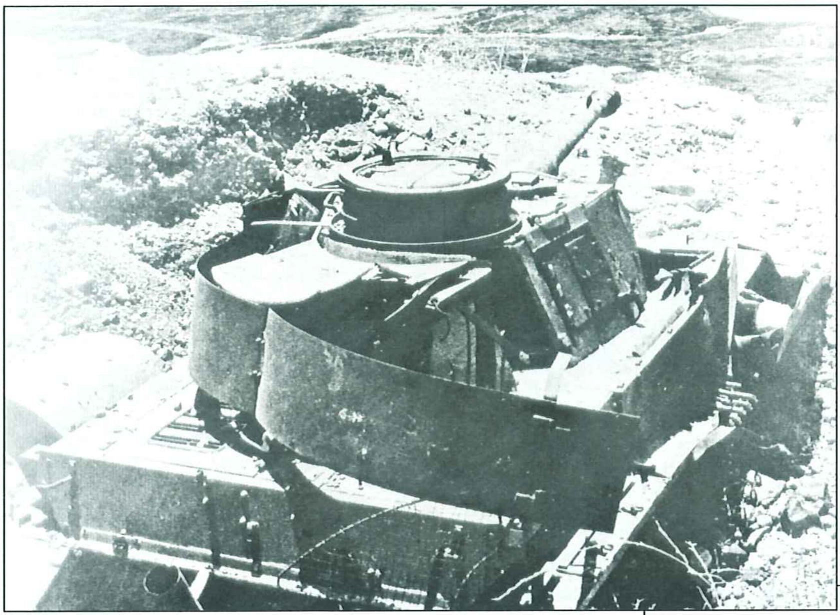
This tank is painted in the usual gray drab and carries an upward chevron insignia. The turret serial is carried on the front turret sides. Tanks of this unit carried a small tactical insignia on the front left fenders about 9 inches high as shown in the inset drawing. This may be a brigade insignia, but details are lacking. This vehicle lacks an individual vehicle/platoon marking.



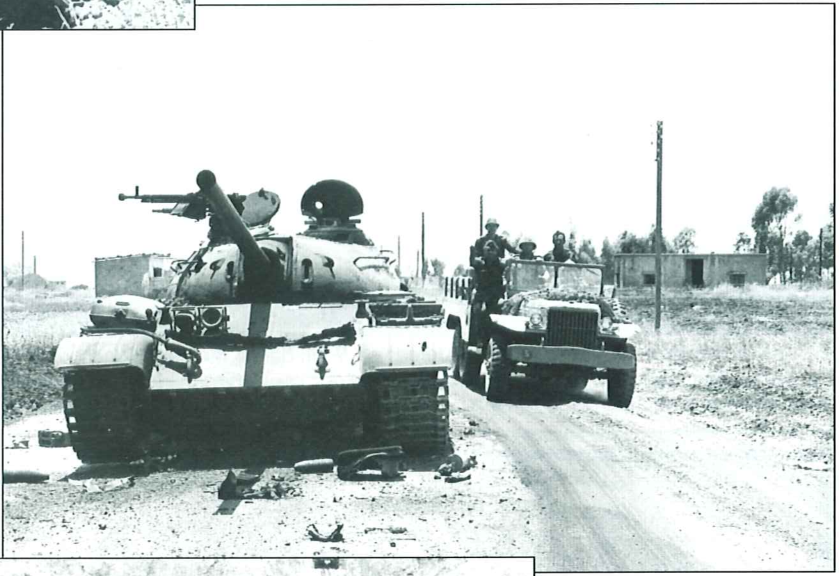
An Israeli AMX-13, probably on the Jordanian front, during the 1967 fighting. Although the gun of the AMX-13 was adequate, the thin armor and age of the AMX-13s conspired against them. This was the last conflict in which Israeli AMX-13s were used in any number. Many of the AMX-13s had a large white band with black trim painted down the turret for air identification. (Israeli Government Press Office)



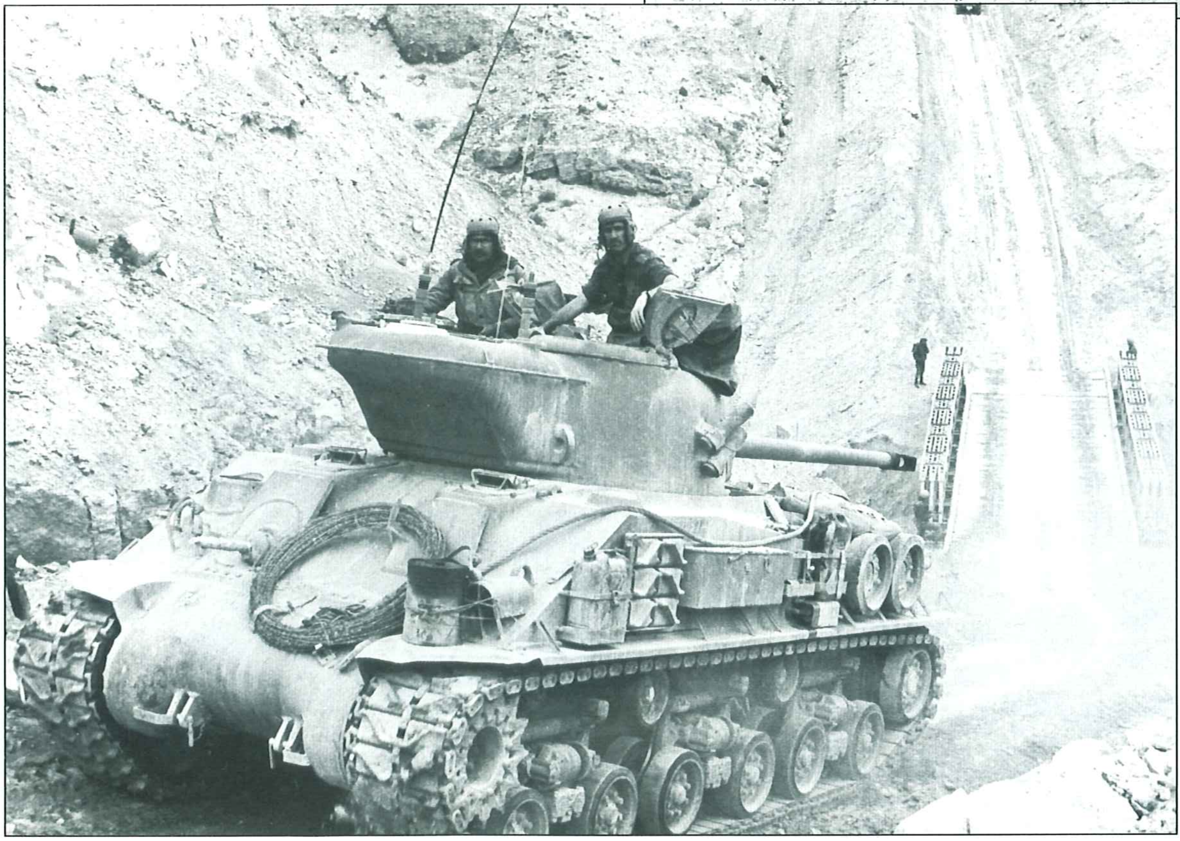
An Israeli M7 105mm Priest self-propelled howitzer battery moves to the front. Although obsolete by European standards, the durability of the basic Sherman chassis and the 105mm howitzer made this a viable weapon in the Mid-East. (Israeli Government Press Office)



By the time of the 1967 war, most of the Syrian PzKpfw IV Ausf. H tanks had been relegated to static defense positions, mostly along the Golan Heights as seen here. Some of these remained in service as late as the 1973 war.

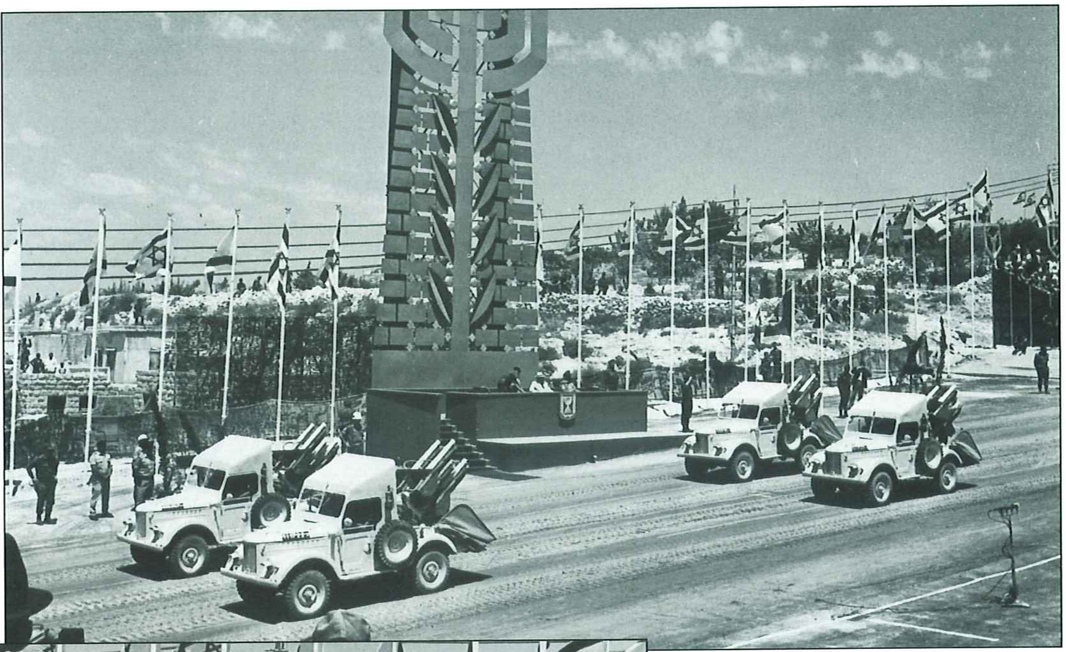


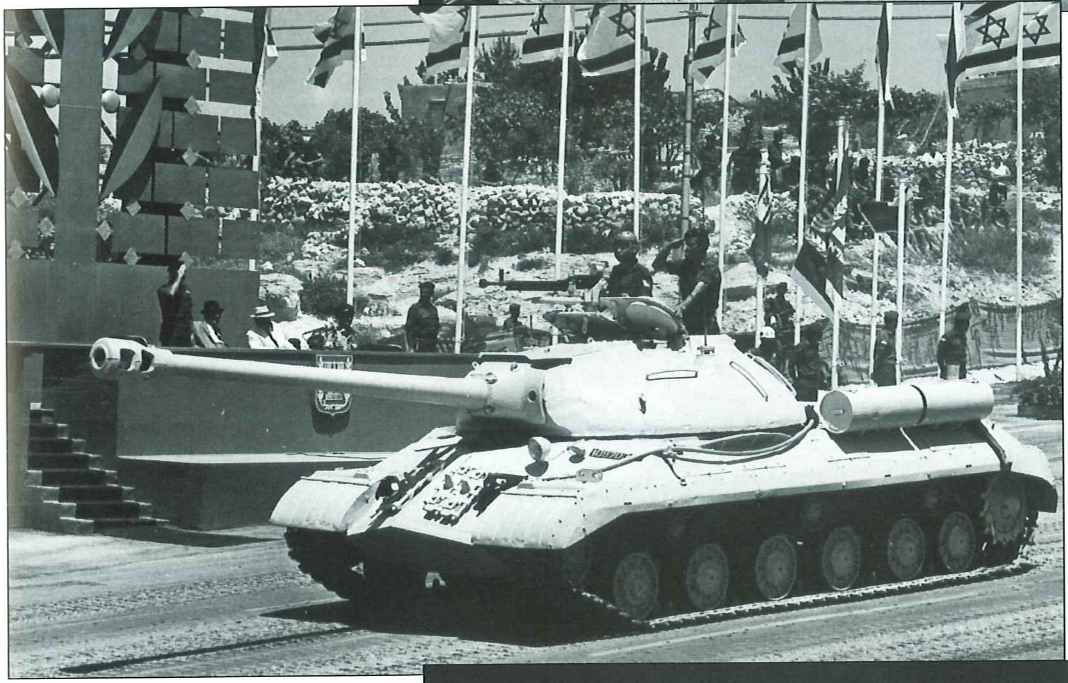
An Israeli Dodge weapons carrier passes a disabled Syrian T-54A tank during the fighting along the Golan Heights in 1967. Although not immediately apparent in this view, this is one of the early T-54A Model 1949s with the rear turret overhang. This is the early model of the T-54A tank, still equipped with the initial version of the D-10T 100mm gun without gun stabilization. (Israeli Government Press Office)



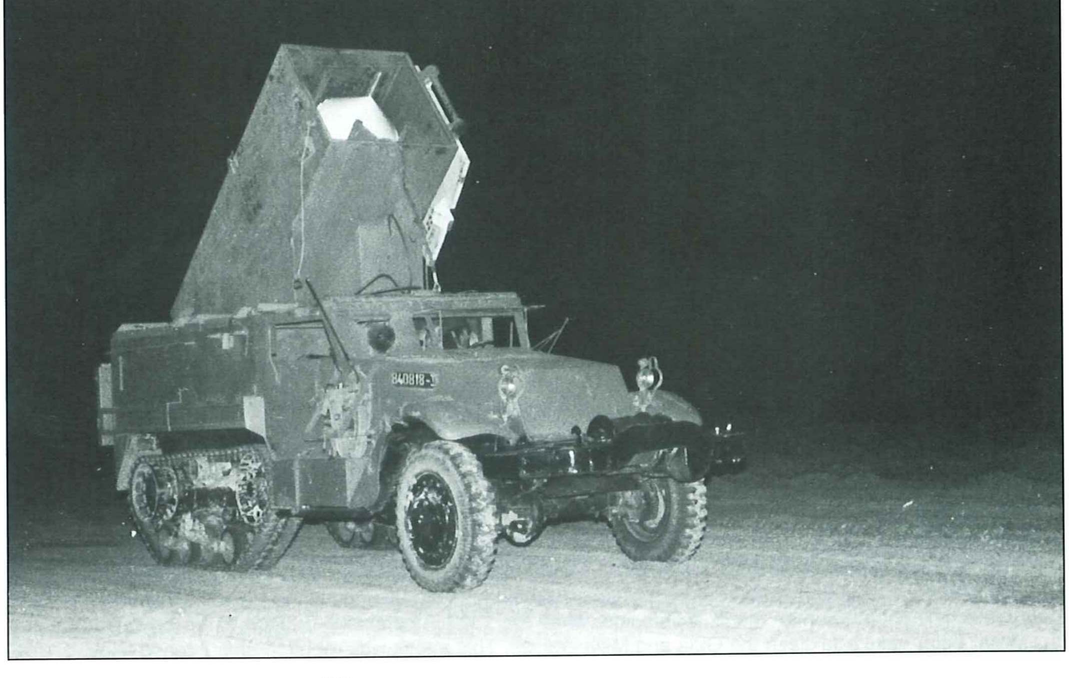
A M50 Super Sherman shortly after the end of the 1967 war. By 1967, most of the M50s had been rebuilt with the HVSS suspension, and many had also been re-engined like the M51HV. In subsequent years, they were put in war reserves, as their 75mm gun was not adequate to deal with the T-54A or T-55 tanks which were becoming the staple of the neighboring Arab armies. (Israeli Government Press Office)

During the war, Israel captured a number of 2P26 "Baby Carriage" tank destroyers from Egyptian forces in the Sinai. These consisted of 3M6 Shmel anti-tank missile mounted on GAZ-69 light trucks. These did not remain in Israeli front-line service for any length of time. (Israeli Government Press Office)



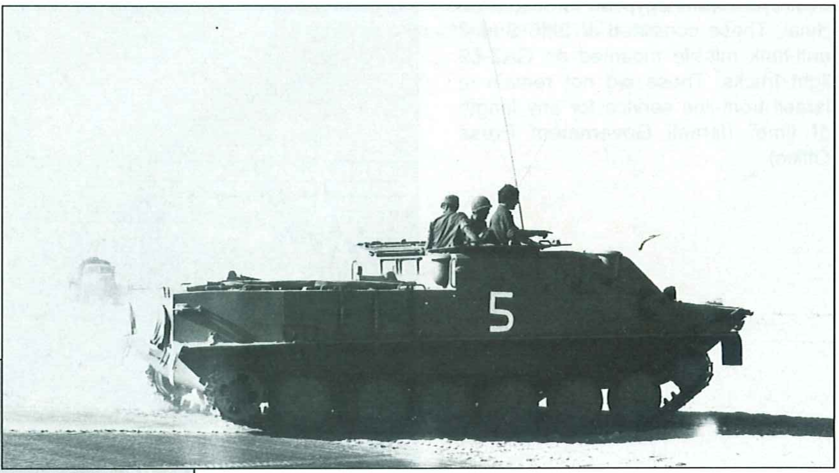


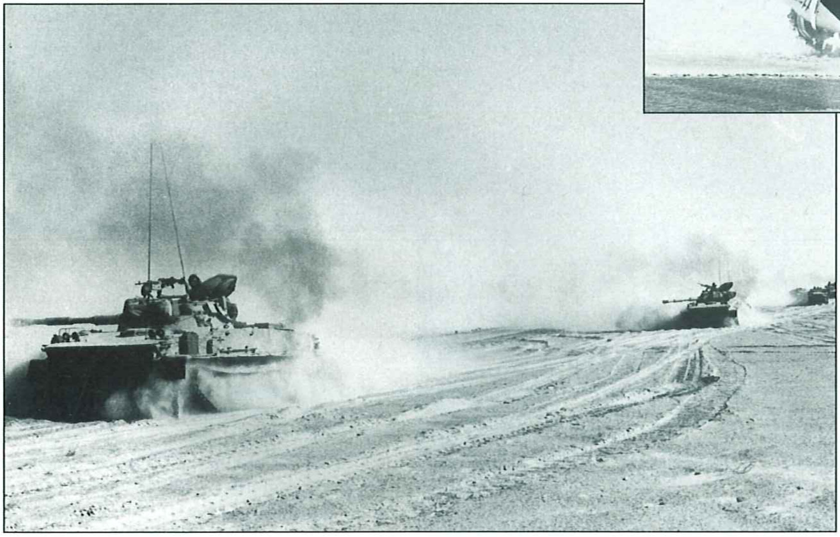
The most potent tank in the Egyptian inventory in 1967 was the IS-3 Stalin heavy tank. There were a number of skirmishes between Israeli Pattons and the Egyptian Stalins during the fighting for the Rafah junction. A total of 72 of these were either destroyed or captured during the fighting. Some of the recovered Stalins were later used as fixed emplacements along the Jordan river after the war. In this role, their engines were removed, and the rear compartment used for additional ammunition stowage. (Israeli Government Press Office)



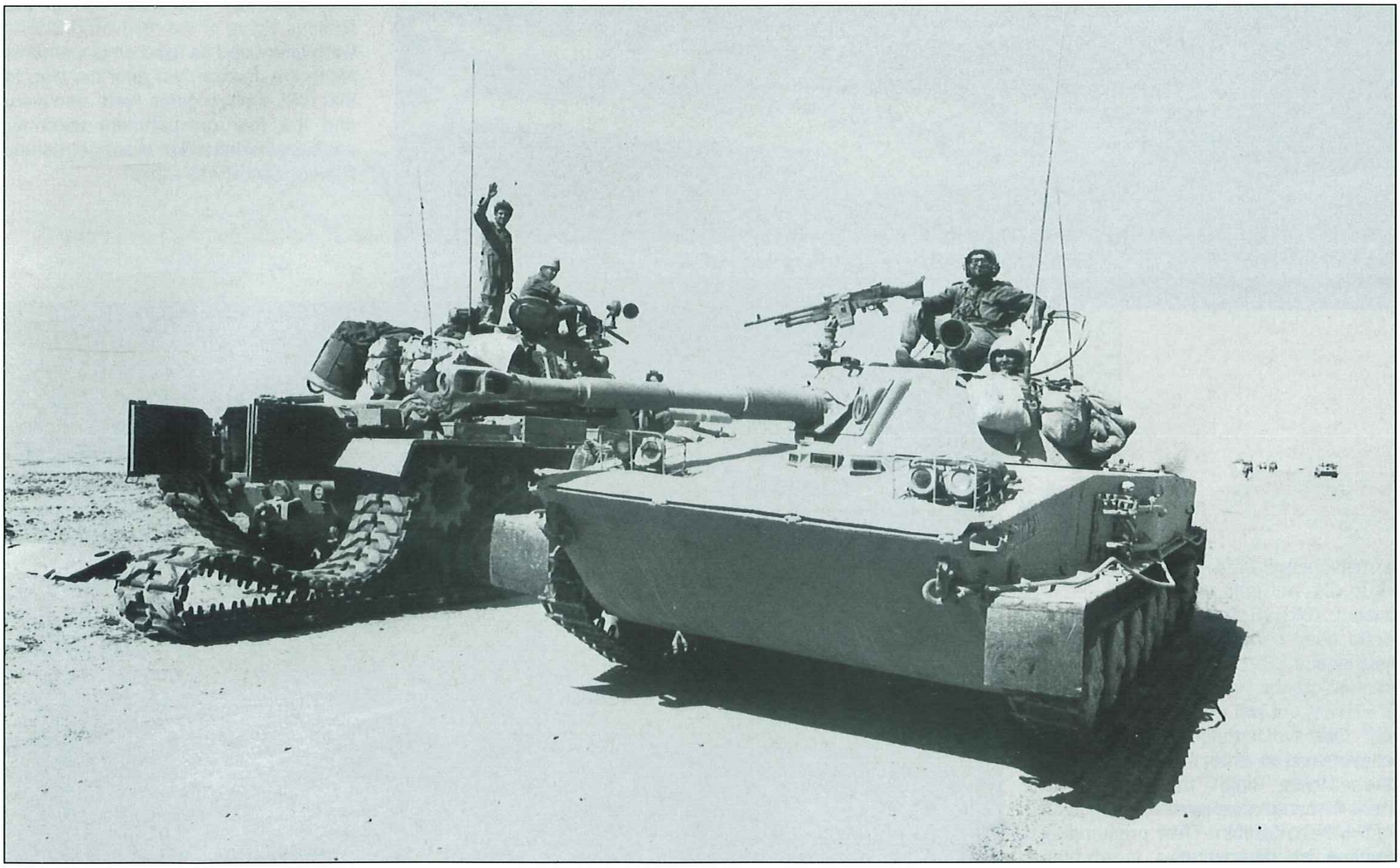
One of the most unlikely conversions to enter Israeli service in the 1960s was this outlandish mine-clearing rocket system, fitted to an old M3 half-track. This presumably worked by detonating a large high explosive charge over the minefield, detonating the mines by overpressure. (IDF Spokesman)

During the War of Attrition in 1970 along the Suez Canal, the Israeli Army sometimes made use of BTR-50P armored transporters in raids across the canal. These vehicles remained in service during the 1973 war, in this case used by a unit that crossed the canal in mid-October in the counter-offensive against Egyptian forces. (IDF Spokesman)

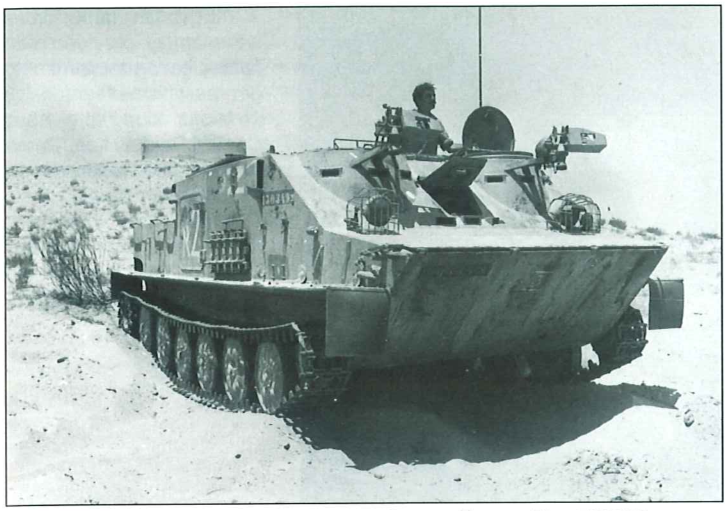




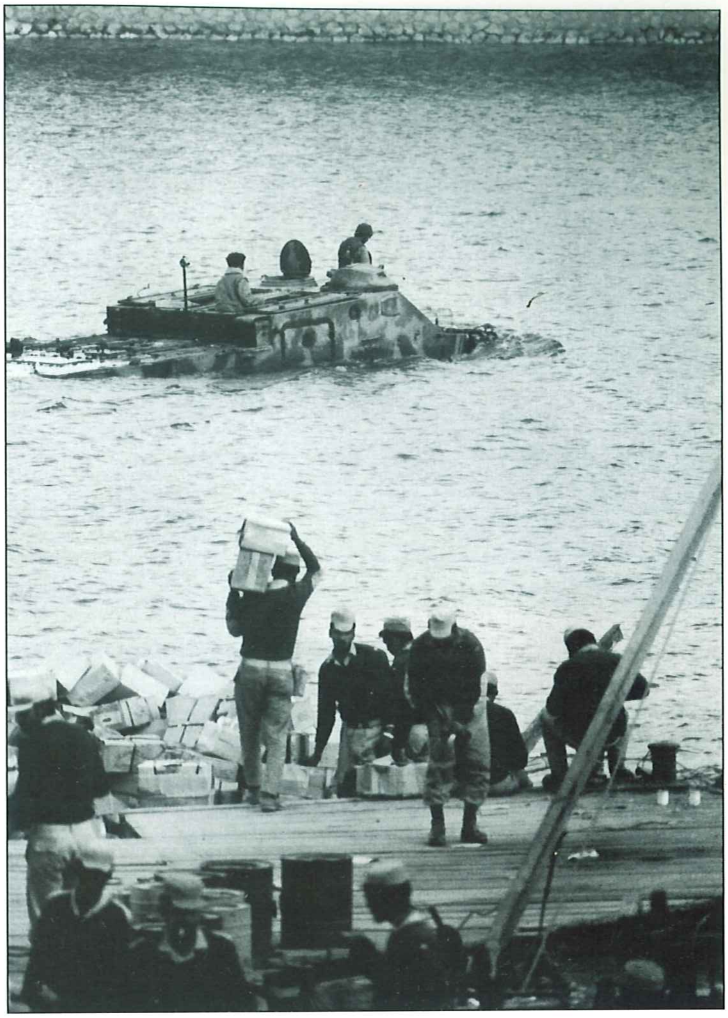
Israel also had a small number of PT-76 amphibious tanks, also used during the War of Attrition along the Suez Canal. They can be distinguished as Israeli vehicles by the use of MAG machine guns at the commander's station as well as other small fittings added by the Israelis such as the US radio antennas. During the 1973 war, the reconnaissance companies of the 11th Armored Brigade with the captured vehicles were attached to Koach Gonen (Gonen Force) commanded by the Southern Front commander's younger brother, Col. Yoel Gonen. (IDF Spokesman)



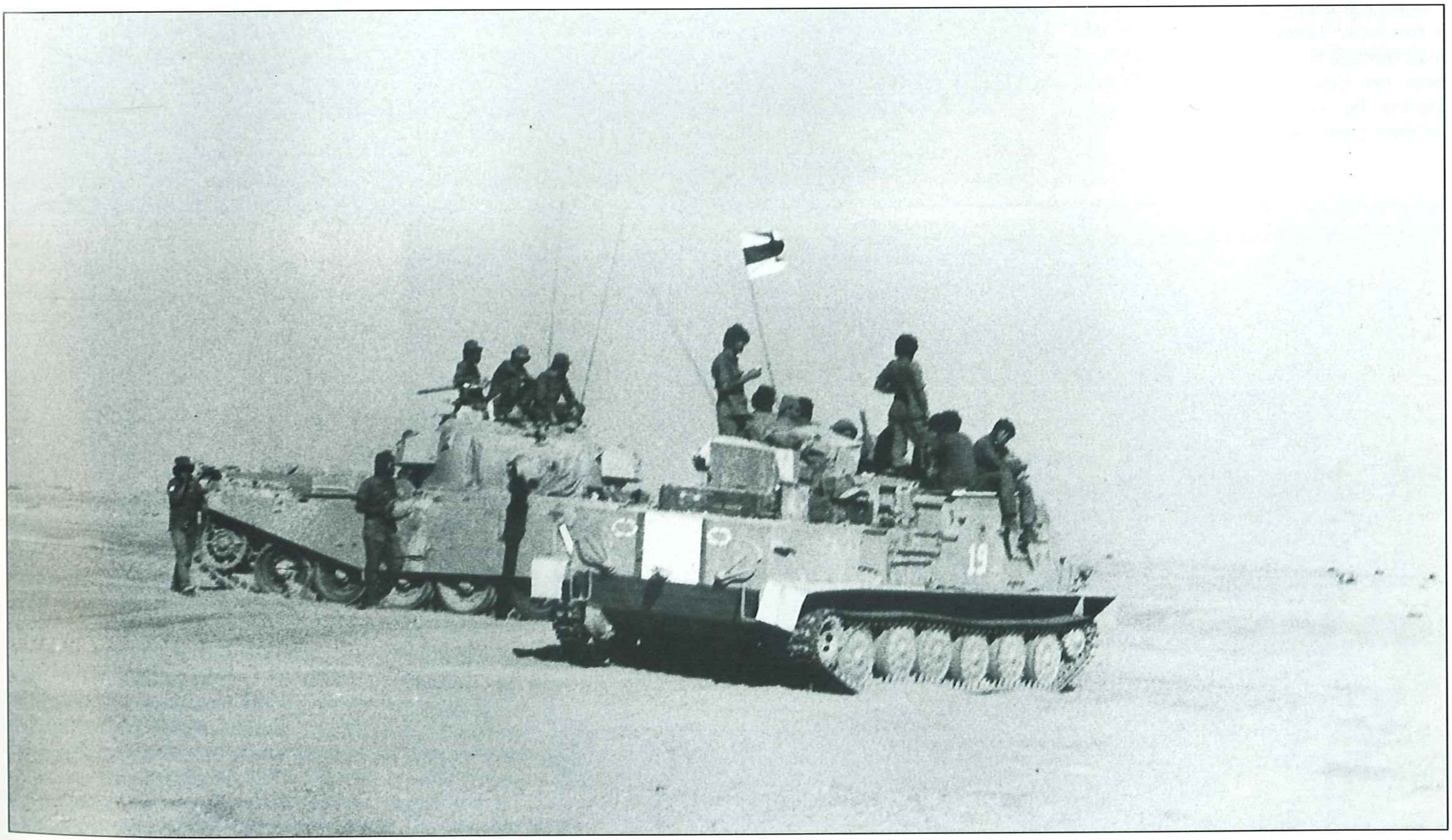
An Israeli PT-76 of the Gonen Force passes a disabled Magach tank along the Lateral Road near the Suez during the 1973 war. PT-76 tanks also took part in a prominent mission on the Egyptian side, when the 130th Amphibious Brigade of the Egyptian 3rd Mechanized Infantry Division attempted to cross the Great Bitter Lake and sieze the Gida and Mitla passes. This attack was rebuffed after intense fighting. (IDF Spokesman)



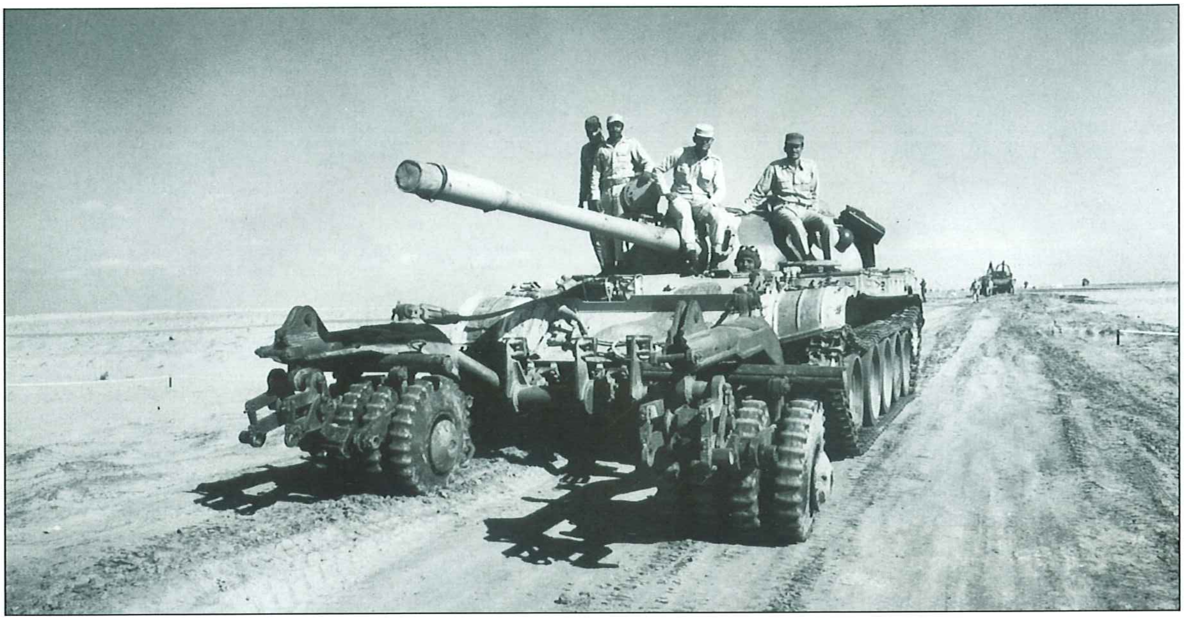
An Israeli OT-62 TOPAS of the Gonen Force. The TOPAS was a Czechoslovak manufactured version of the Soviet BTR-50P, most easily distinguishable by its large side access door. In Israeli service, a pair of pintle mounts were added in front of the cupolas, usually armed with MAG machine guns. (IDF Spokesman)



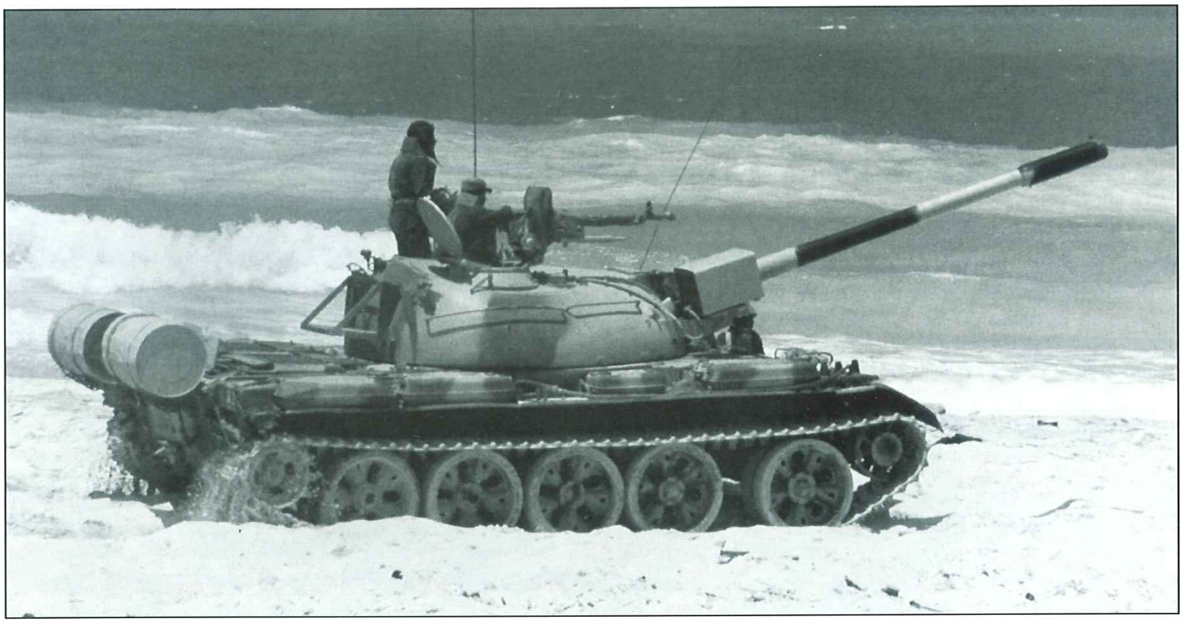
At the outset of Operation Badr, the Egyptian assault across the Suez Canal, Egyptian raiding forces in BTR-50P and OT-62 TOPAS amphibious armored transporters crossed the canal to assault the Israeli Bar-Lev line. This is an Egyptian OT-62 TOPAS. This particular version is armed with a small turret that can mount an 82mm Tarasnice recoilless rifle, though the weapon is not fitted on this vehicle.



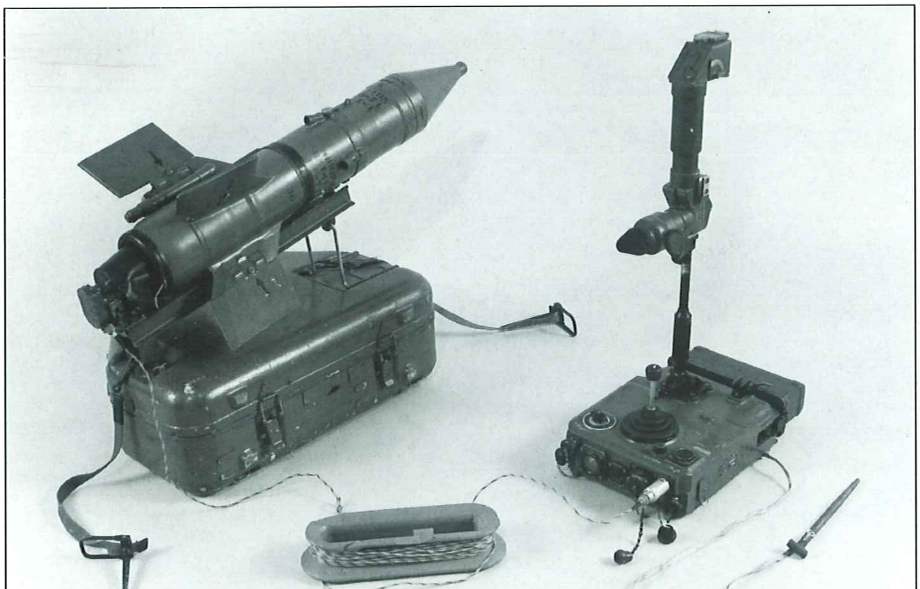
An Israeli OT-62 TOPAS passes a Centurion during the 1973 fighting. During the 1973 war, many of these captured vehicles were prominently marked with a large white air identification stripe, edged in black, down the center of the vehicle. This was intended to prevent inadvertent attacks by Israeli aircraft. (IDF Spokesman)



Egyptian tank forces were amply provided with mine-clearing equipment to get past Israeli defensive positions along the Suez Canal's Bar Lev line. This is a T-54A fitted with a set of PT-54 mine rollers.

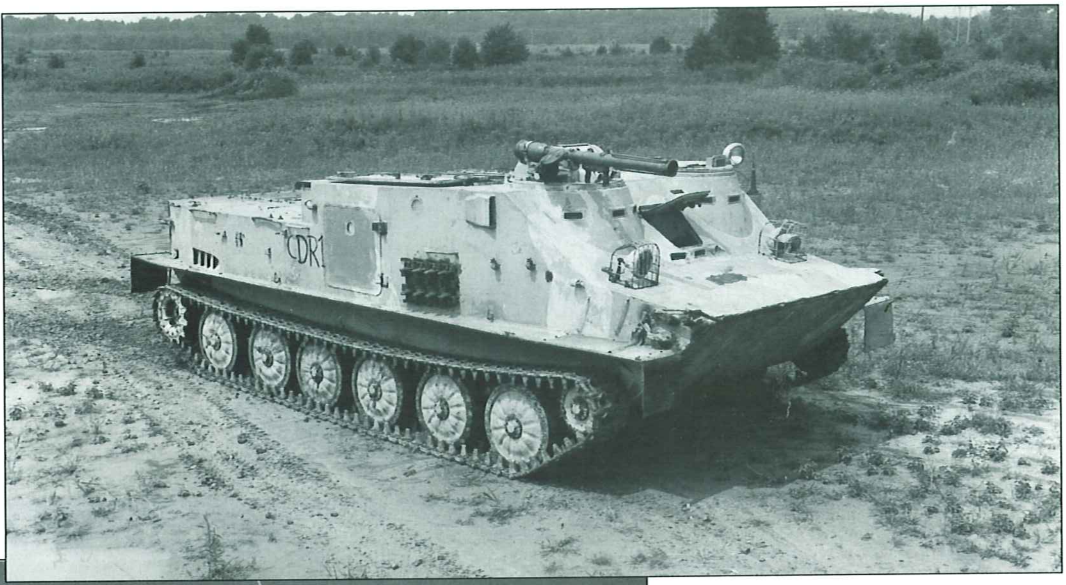


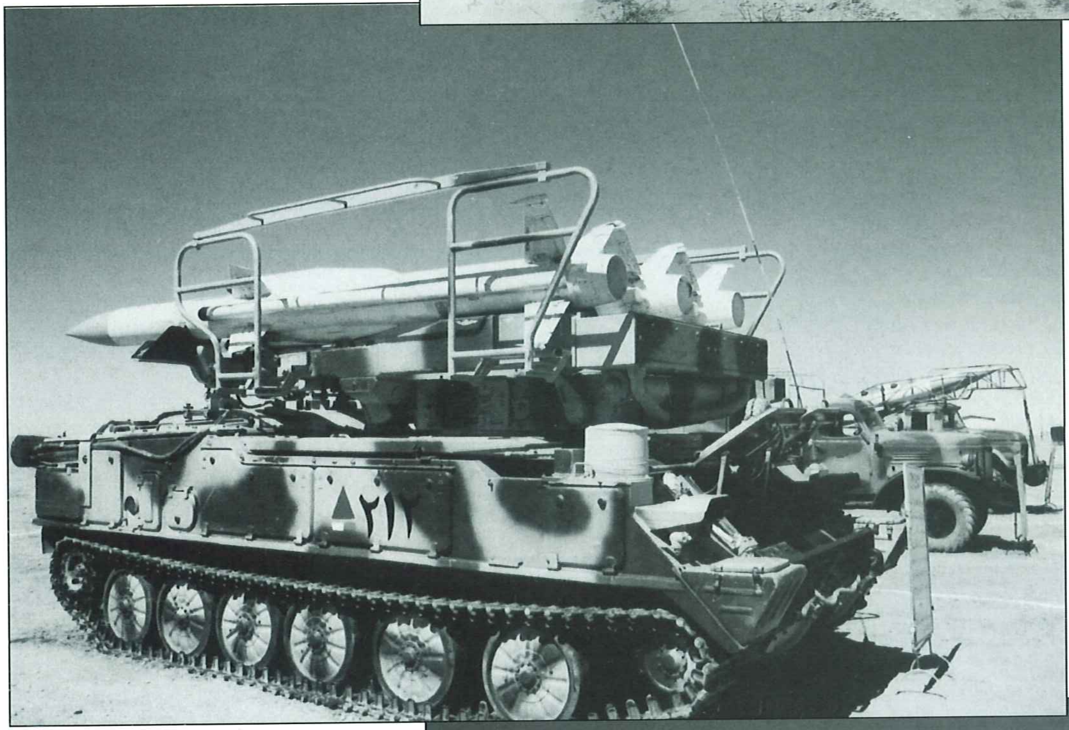
Prior to the start of the 1973 war, the Egyptian Army began modernizing some of its older T-54A tanks with night fighting equipment. They acquired the German AEG-Telefunken infrared searchlight, similar to that fitted on the German Leopard I tank. This Egyptian Marine T-54A was photographed after the war during the Bright Star joint exercises. However, the camouflage is typical of that on Egyptian T-54As during the war, consisting of dark green over sand.



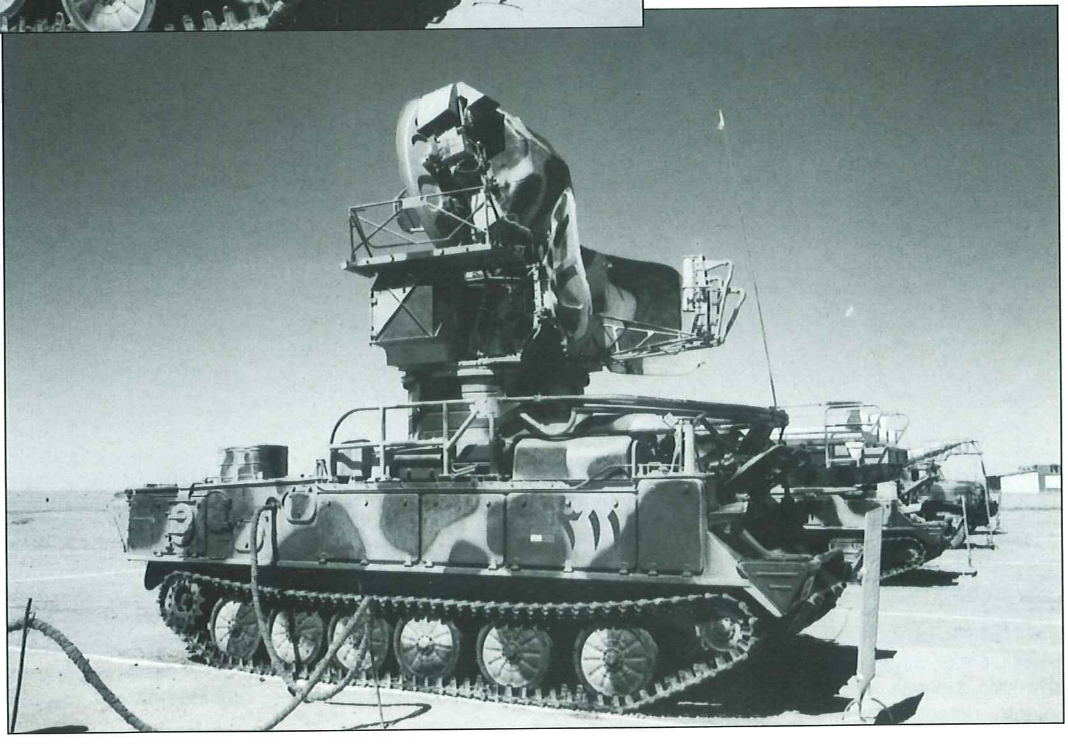
Undoubtedly the single greatest shock to Israeli tankers was provided by the Soviet 9M14M Malyutka (AT-3 Sagger) anti-tank missile. The Russians claim that 800 Israeli tanks were knocked out by Malyutkas, probably an exaggeration; however the Malyutka was certainly one of the main causes of the heavy Israeli tank losses in 1973. The man-pack version was generally operated by a three-man team. The first load, carried by the gunner, consists of the 9S415 joystick control unit, and the attached 9Sh16 periscopic sight seen here to the left. The second and third team members each carry a fiberglass "suitcase" each containing a single 9M14 Malyutka missile. The 9P111 suitcase serves as the launch-pad for the missile and contains a small launcher rail which is fitted to the top of the box.

The OT-62 TOPAS was the mainstay of Egyptian mechanized infantry regiments in the 1973 war, and played an especially prominent role due to its amphibious capabilities. This is the version armed with the Tarasnice recoilless rifle. This example is painted in a typical camouflage pattern of pale green with sand stripes. This OT-62 was captured by Israeli forces in 1973, and handed over to the US Army for technical evaluation.

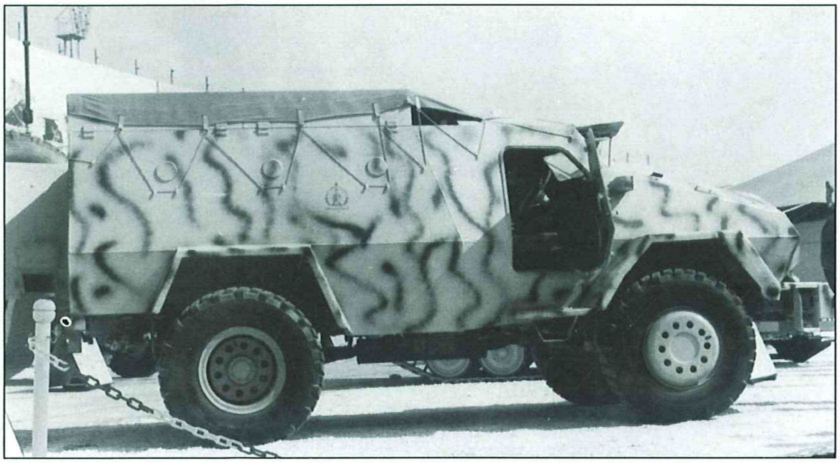




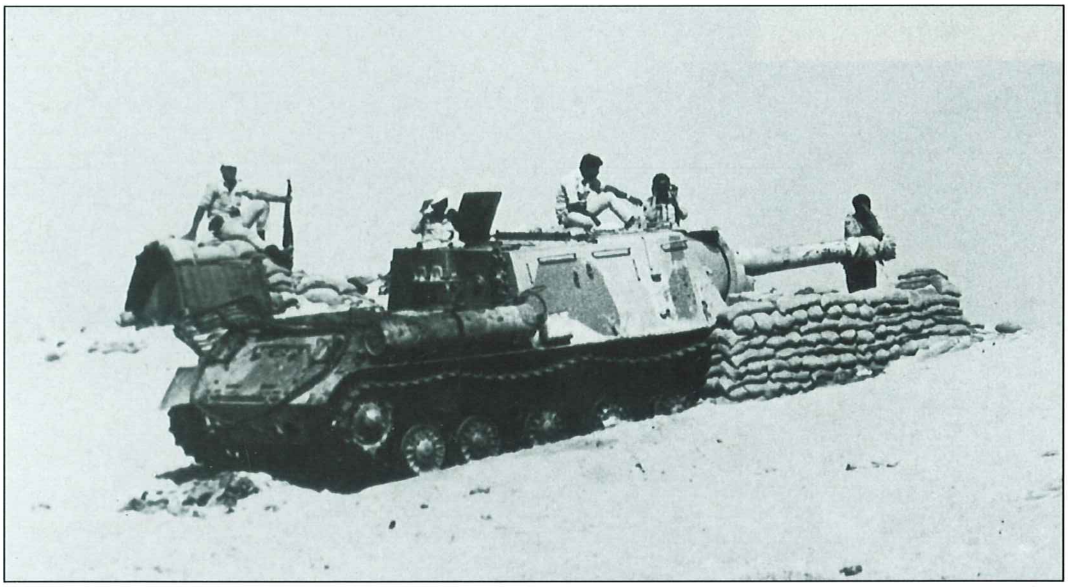
Egyptian forward formations were defended against Israeli air attack by batteries of the 2K12 Kvadrat (SA-6 Gainful) air defense missile. This is the 2P25 launcher vehicle, armed with three 3M9 missiles each. The chassis is a derivative of the type developed by the Astrov KB for the ZSU-23-4 Shilka air defense gun which was often used in support of Kvadrat batteries. This Egyptian vehicle, photographed after the war, is camouflaged in sand and olive drab. The tactical insignia is a green triangle over a white and yellow bar, and the Arabic numeral 212. The missiles are white with a grey radome. (Lon Nordeen)



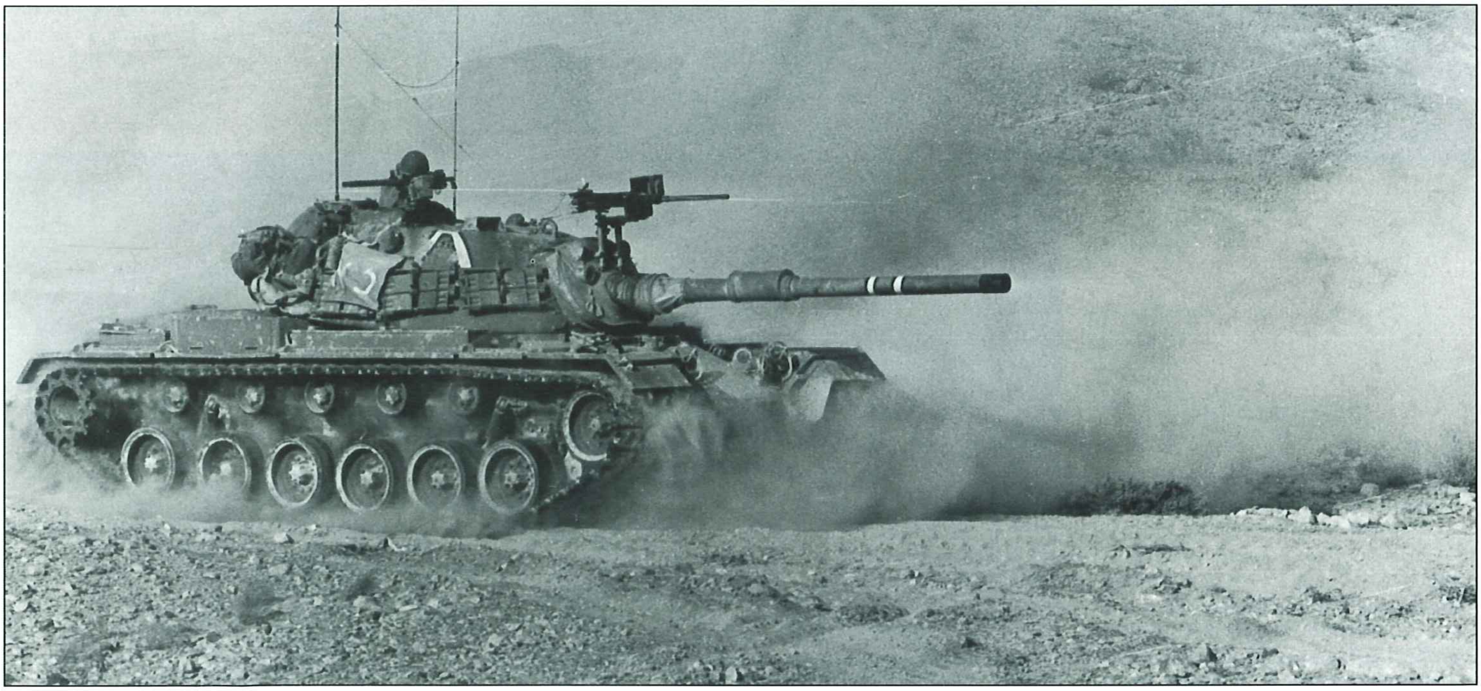
The Kvadrat battery is controlled by its 1S91 (Straight Flush) radar engagement vehicle as seen here. Each 1S91 controls four 2P25 launcher vehicles. The Israeli Air Force had a hard time dealing with the new Kvadrat system, but later realized that by knocking out the 1S91 radar vehicle, the entire Kvadrat battery could be rendered useless. (Lon Nordeen)



One of the few indigenous Egyptian armored vehicle designs to see service in the 1973 war was the Walid armored transporter. The Walid was patterned after the Soviet BTR-40 and was built by the Kader Factory in Cairo on license produced German Magirus Deutz truck chassis. Although originally designed as a troop carrier, they were often used for special roles including as command vehicles, combat engineer transporters, ammo carriers and other missions. (Christopher Foss)

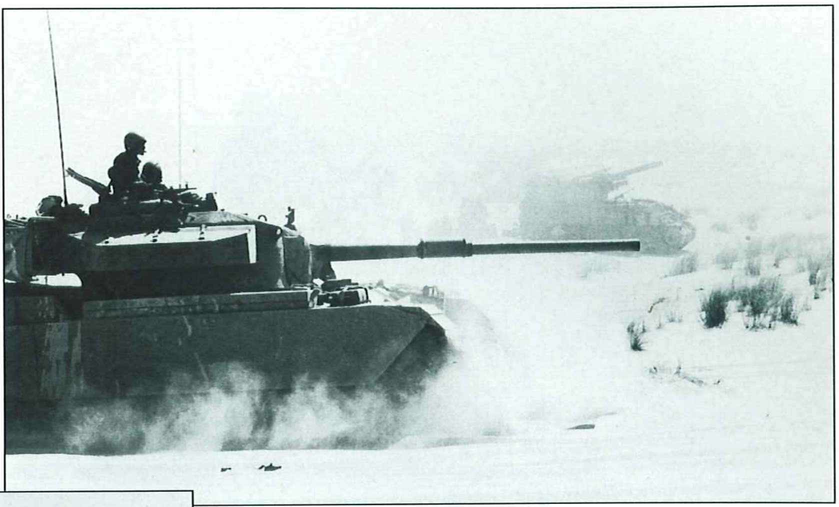


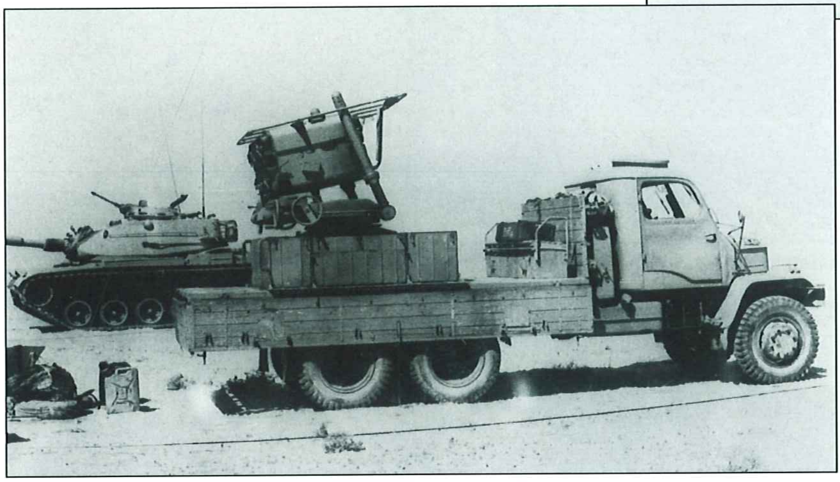
Although obsolete by 1973, the Egyptian Army still had small numbers of ISU-152 assault guns in service in 1973. Many of them were deployed statically along the west bank of the Suez Canal to create an improvised defensive line. This example was stationed in the Genifa Hills south of Ismailya. (Joseph Bermudez)



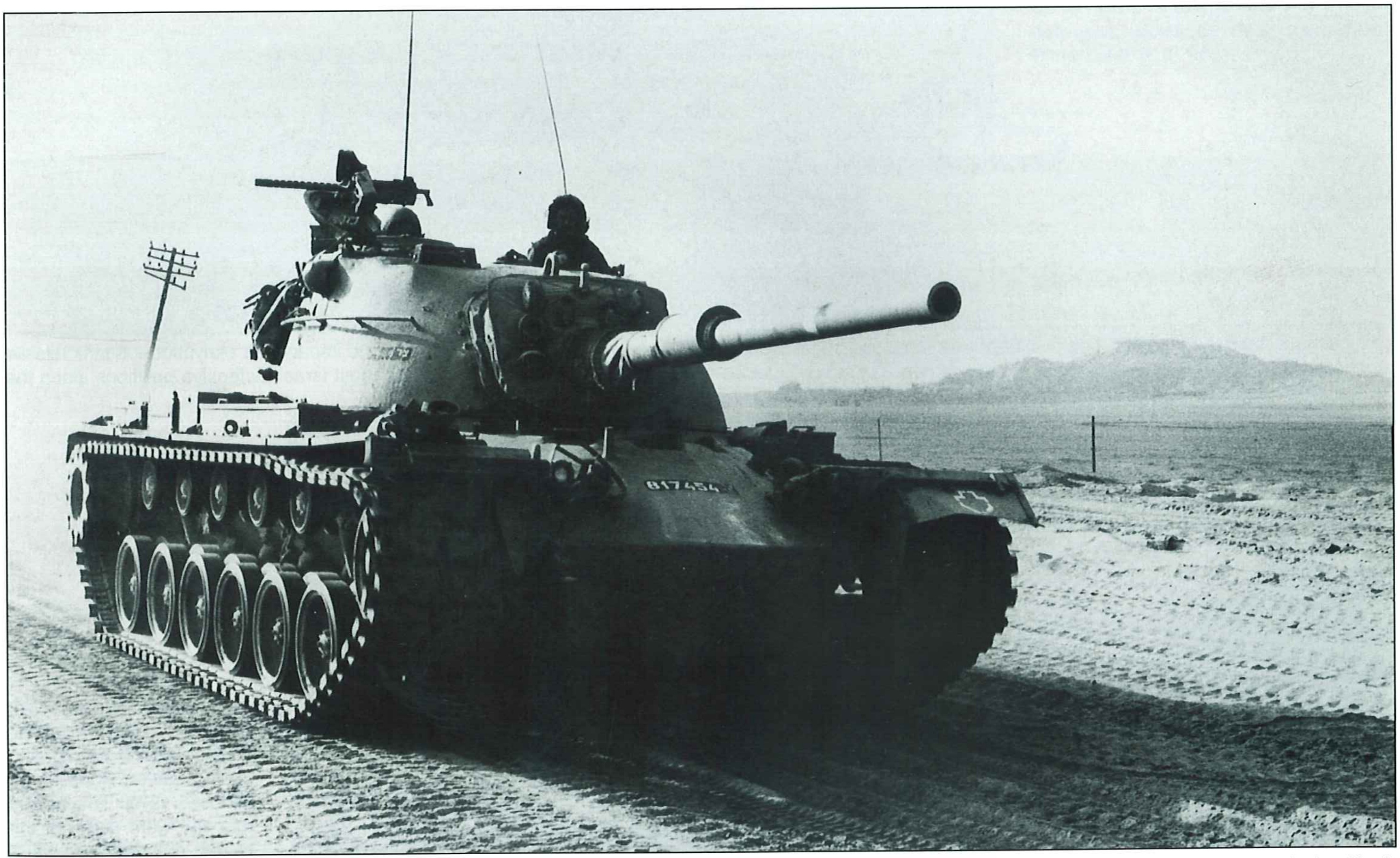
Prior to the 1973 war, the Israeli Army modernized and standardized its growing M48 Patton inventory. The vehicles were retrofitted with AVDS-1790 diesel engines, and the 90mm gun was replaced by American supplied M68 105mm guns, a US license produced copy of the highly effective British L7 gun. The resulting version was nicknamed the Magach by Israeli troops. Magach is actually a Hebrew acronym (Ma-Ga-Ch) from the Hebrew letters Mem and Chaf, which stand for "48" and the middle letter of Gimel standing for Germania [or "Germany"] since the first vehicles were received from West German stores. Other changes evident on the Magach are the substitution of an Urdan cupola, derived from the original M48 cupola. The .50 cal machine gun over the main gun was originally added for training purposes, but later proved popular in combat to provide suppressive fire against anti-tank missile teams and infantry. (Israeli Government Press Office)

By the time of the 1973 war, a significant portion of the Israeli Centurion force had been upgraded. This included both the substitution of the 105mm gun for the old 20 pdr., but also the substitution of the American AVDS-1790 and its associated transmission for the original Meteor engine. The resulting version was nicknamed "Shot" (Whip) in Israeli service, although it was unofficially called the Ben Gurion when it first appeared. This Centurion Shot of Colonel Nir's 217th Armored Brigade passes a battery of M50 155mm self-propelled howitzers during the Sinai fighting on 12 October 1973. (IDF Spokesman)

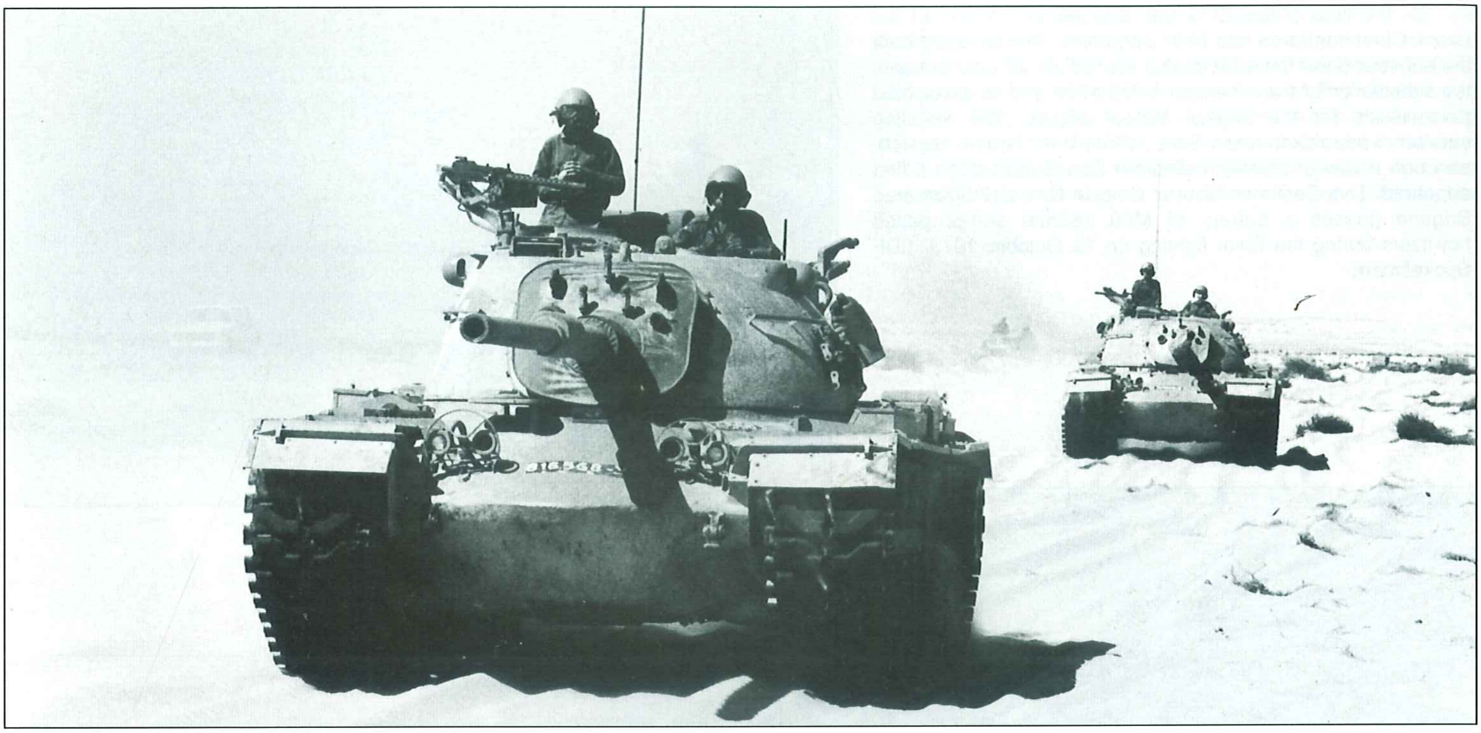




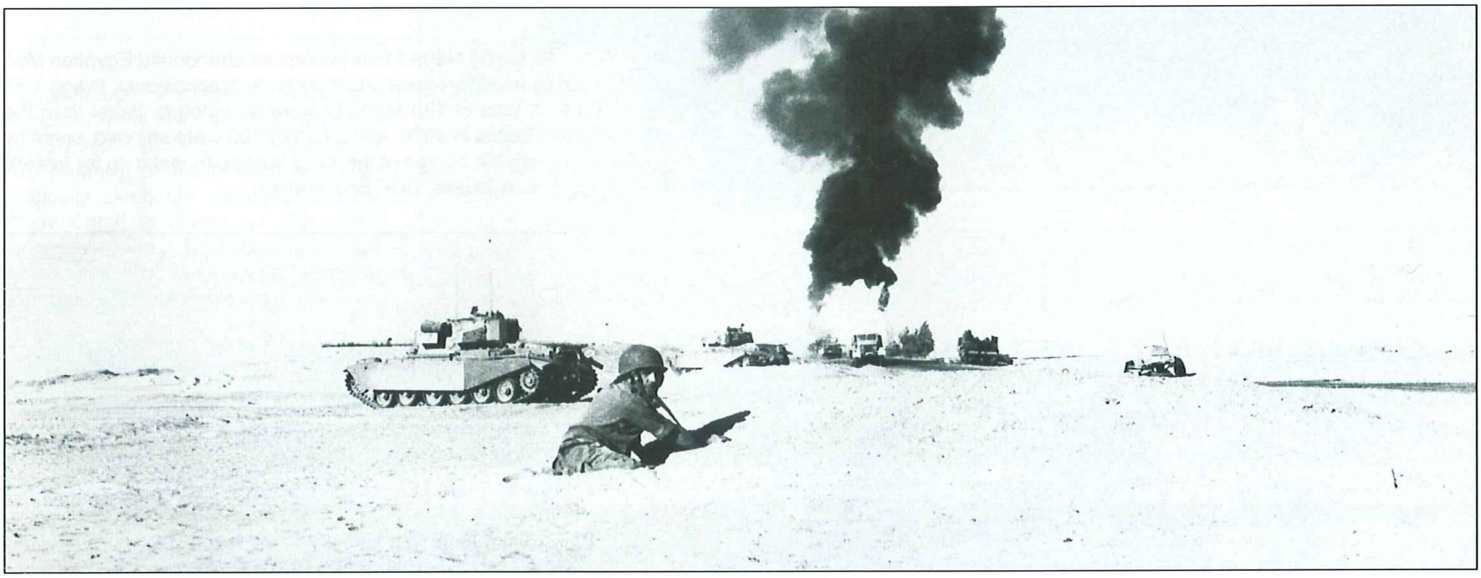
An Israeli M60A1 tank passes an abandoned Egyptian M51 130mm multiple rocket launcher on a Czechoslovak Praga V3S truck. A total of 150 M60A1s were provided to Israel from the United States in 1970, and a further 100 were shipped, some by air, during the course of the 1973 fighting to make up for Israel's heavy tank losses. (IDF Spokesman)



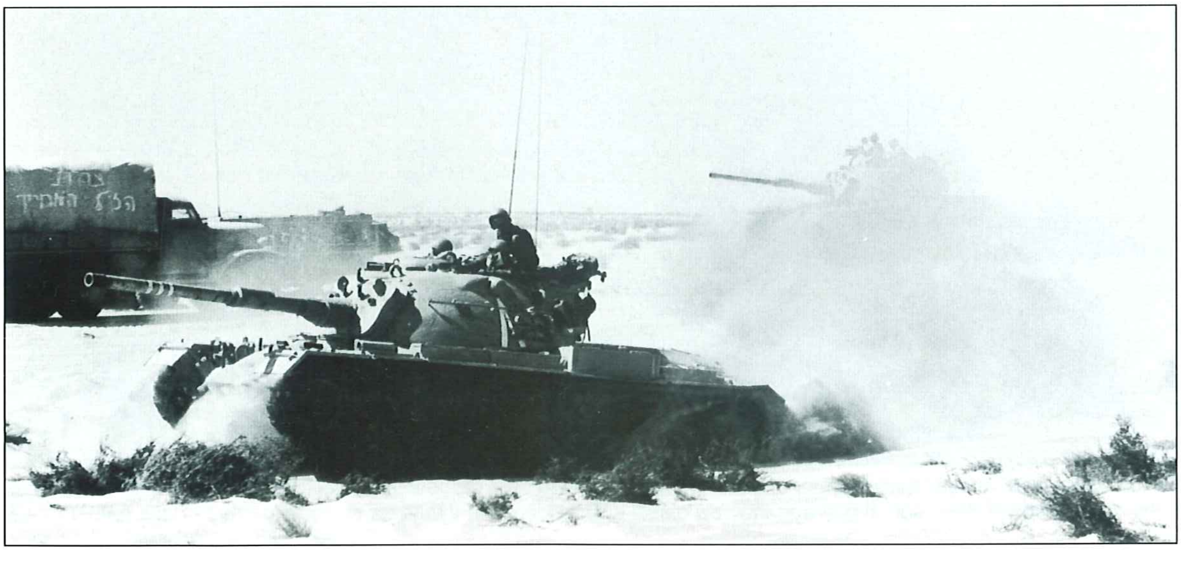
A Magach of the reconnaissance company of an unidentified armored battalion moves forward on 7 October 1973 during the initial fighting in the Sinai. This tank has the standard features of the Magach- the 105mm gun and the new diesel engine identified by the air cleaners evident on the fenders. (IDF Spokesman)



A pair of Magach tanks, probably from the 14th Armored Brigade, during the fighting in the Sinai in mid-October 1973. (IDF Spokesman)

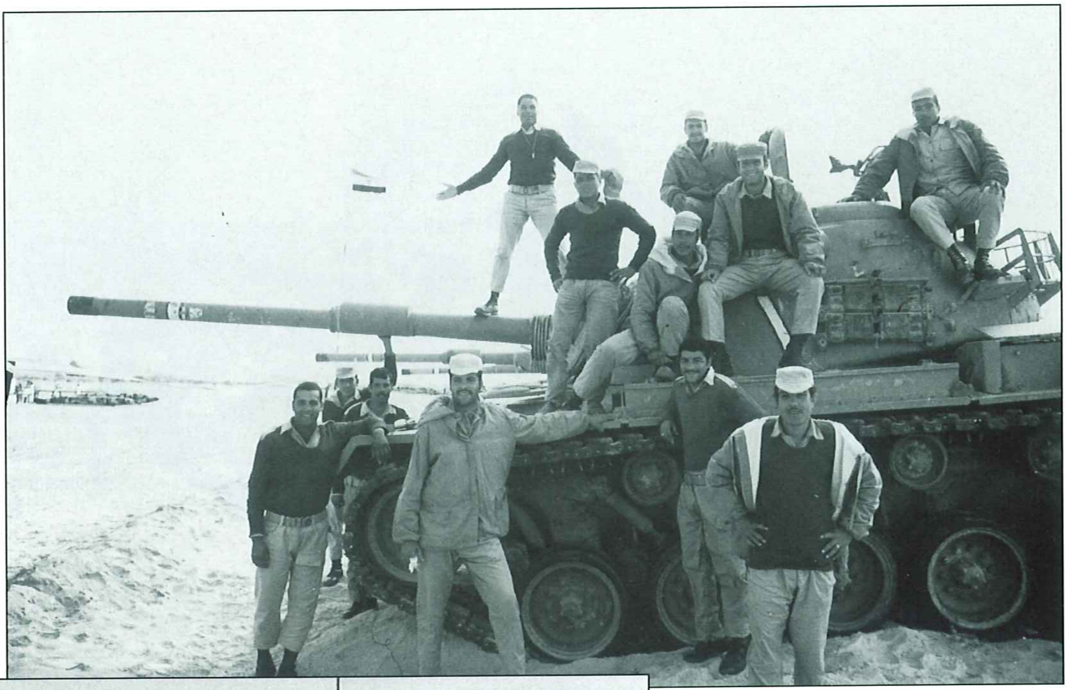


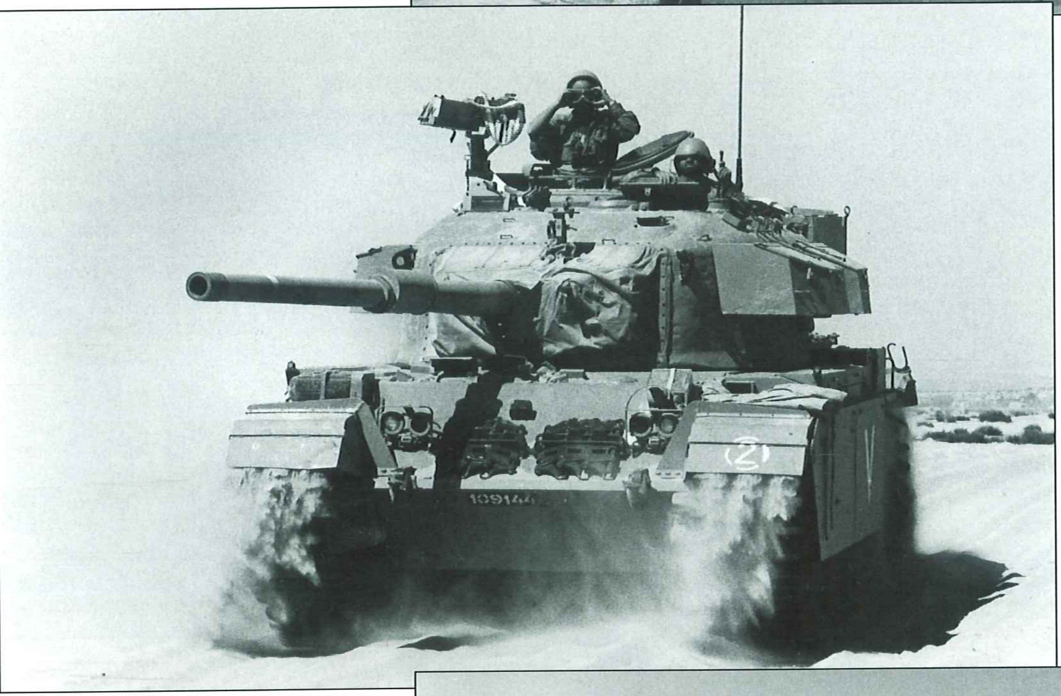
In the distance, an Israeli Centurion Shot tank disappears in a fireball after its ammunition was detonated by the impact of a Malyutka anti-tank missile during a skirmish with Egyptian commando teams near Drora on 6 October 1973. Drora was one of the northernmost Israeli defensive positions along the Suez Canal. (IDF Spokesman)



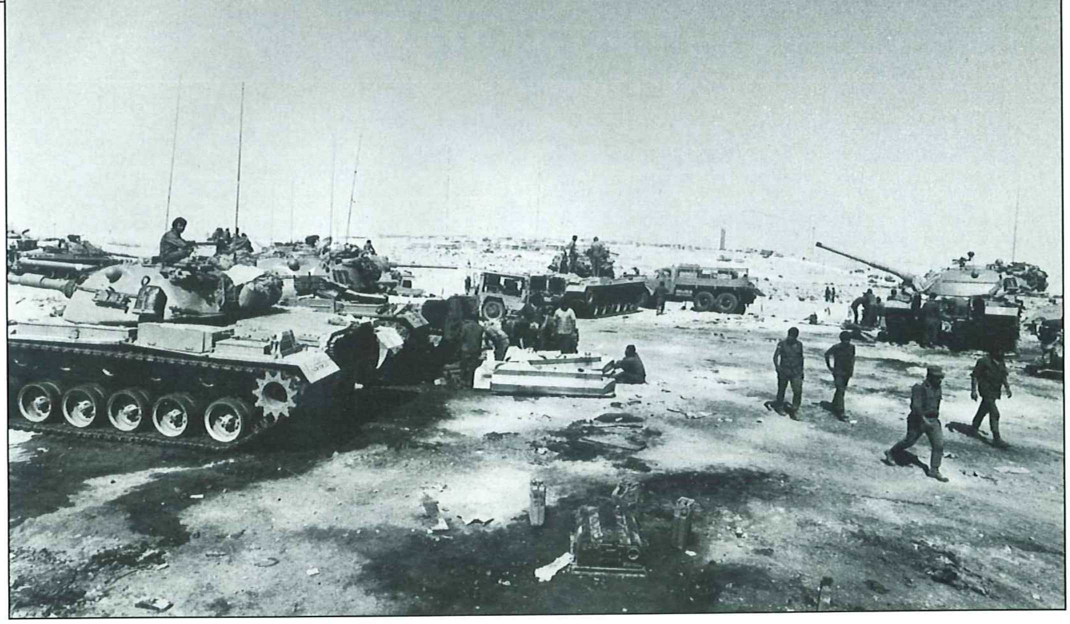
A pair of Magach tanks of the 14th Armored Brigade during the fighting for the Lateral Road on 14 October 1973. The battles this day were some of the largest and most intense of the war, causing heavy tank casualties on both sides. (IDF Spokesman)

Egyptian troops from the 3rd Army pose for a photograph near three Magach tanks captured during the 1973 fighting. The 3rd Army attacked sraeli defenses between the Great Bitter Lake and the Gulf of Suez, aiming or the Gidi and Mitla passes.

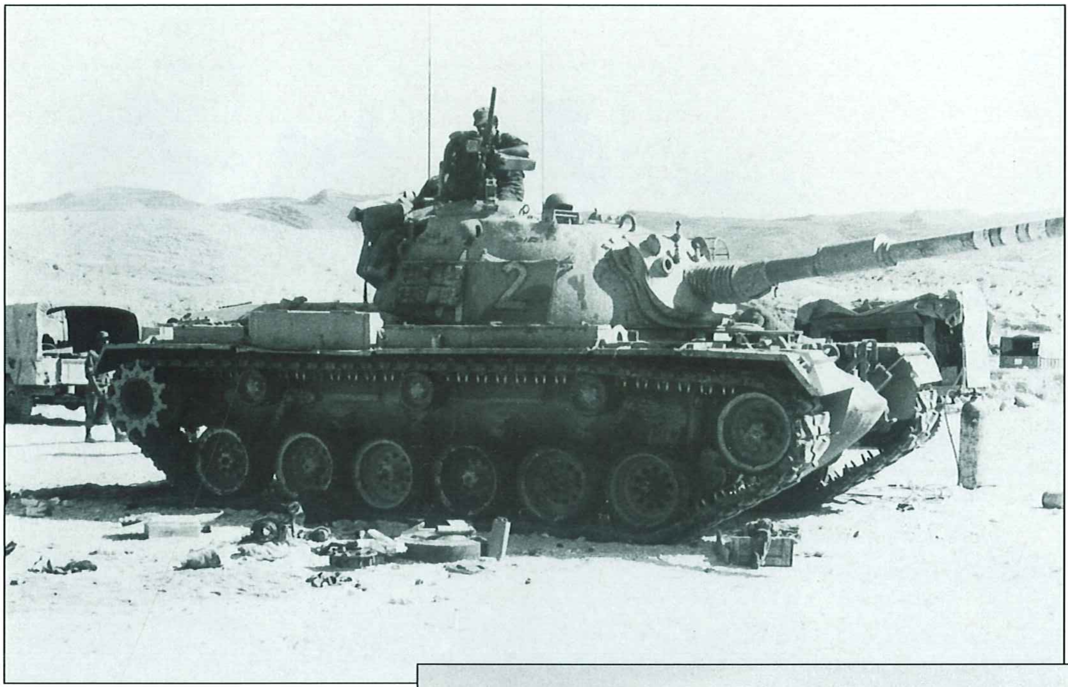




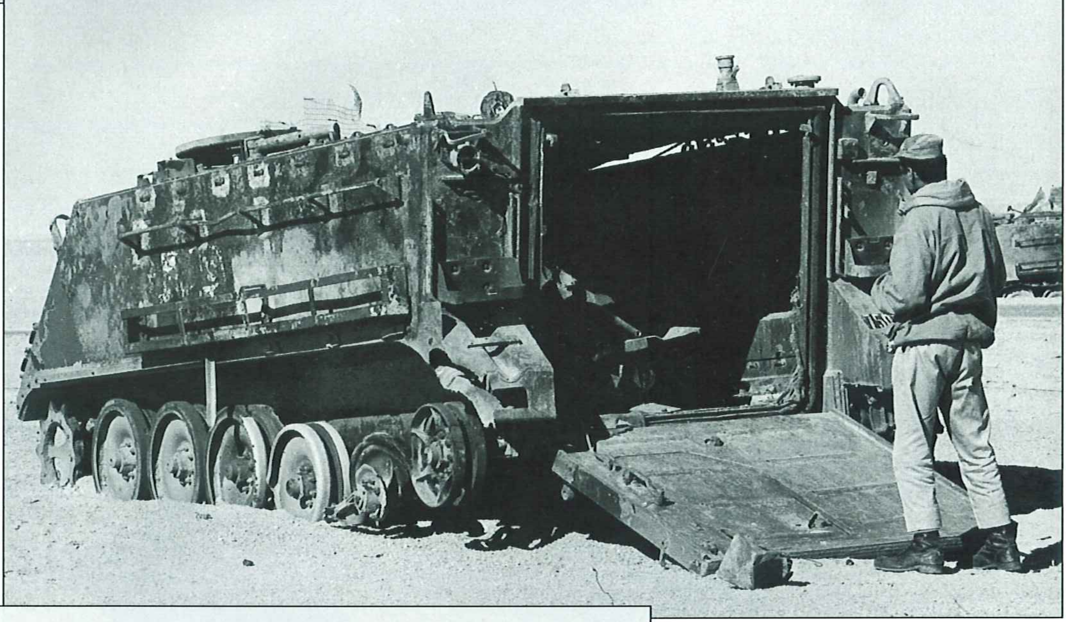
A Centurion Shot moves forward to deal with T-62 tanks that were pushing out of the bridgehead near the Botzer defensive positions near the Great Bitter Lake. (IDF Spokesman)



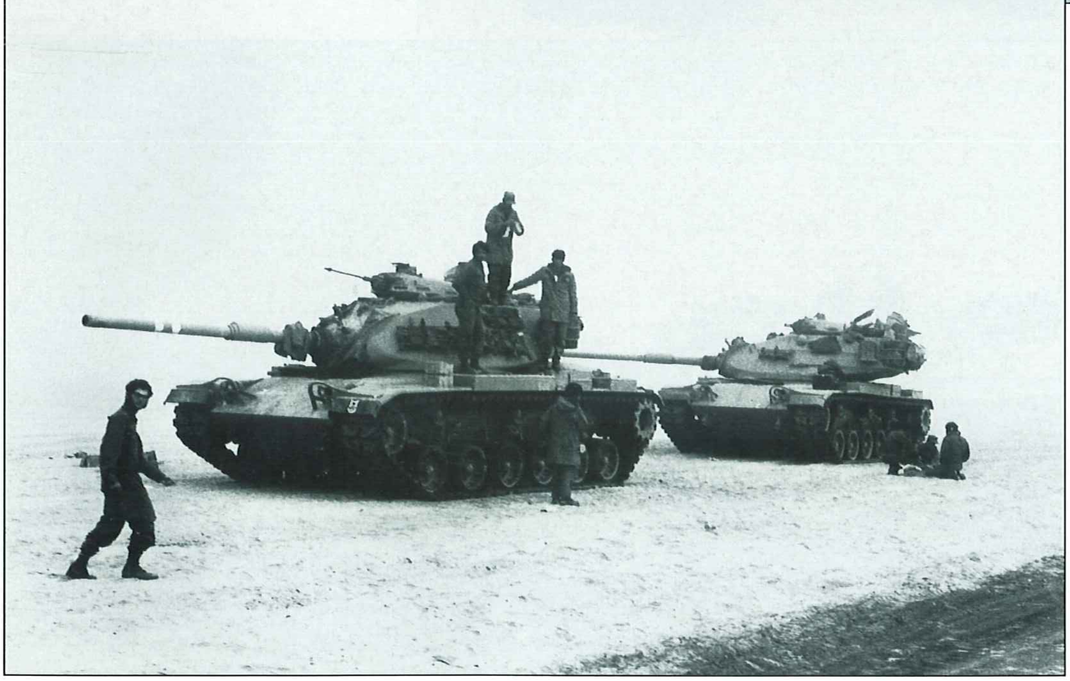
A company of Magach tanks from Col. Dan Shomron's 401st Armored Brigade, part of Ugdat Albert, receive maintenance and supplies at a forward ordnance camp near the Canal during the fighting on 10 October 1973. Several of the tanks are undergoing engine repair. (IDF Spokesman)



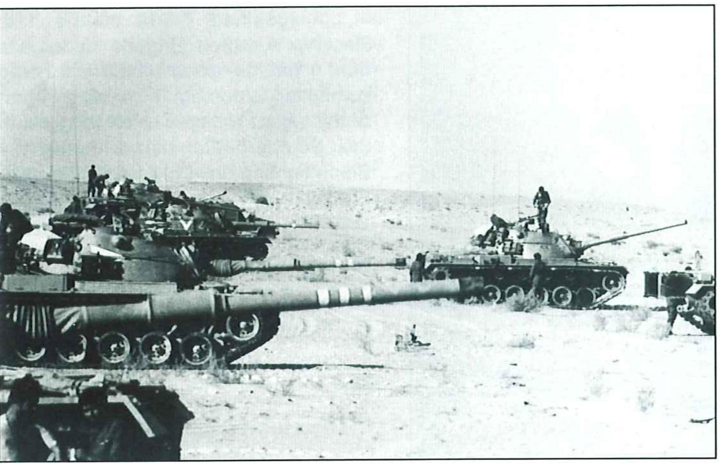
A Magach undergoes resupply near Lituf on 7 October 1973. This shows the characteristic features of the Israeli modified M48 Pattons, although this one has also had two of its five return rollers removed. (IDF Spokesman)



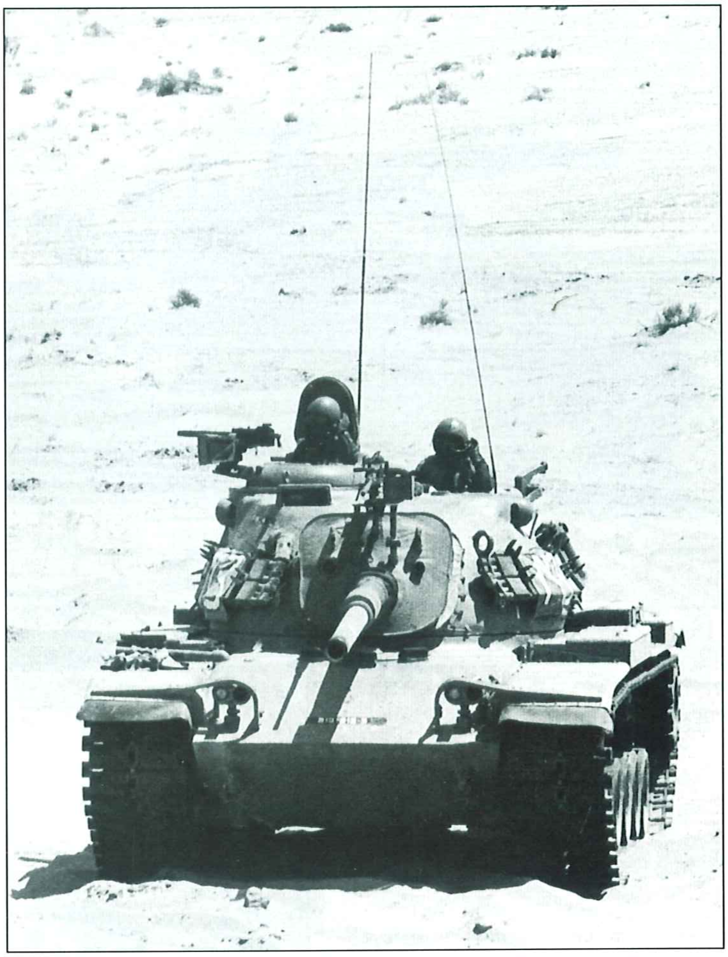
Israel originally refused a US offer of 200 M113 APCs at the time of the 1967 war, but after suffering infantry casualties in the old M3 half-tracks in the 1967 fighting, reconsidered. A total of 448 M113 and M577 command vehicles were delivered in 1972-73 to help re-equip the Israeli infantry force before the war. The Israeli Ordnance Corps made several small modifications to the M113, including the external stowage racks as seen here. This vehicle was knocked out and burned in the Egyptian 3rd Army sector during the October fighting.



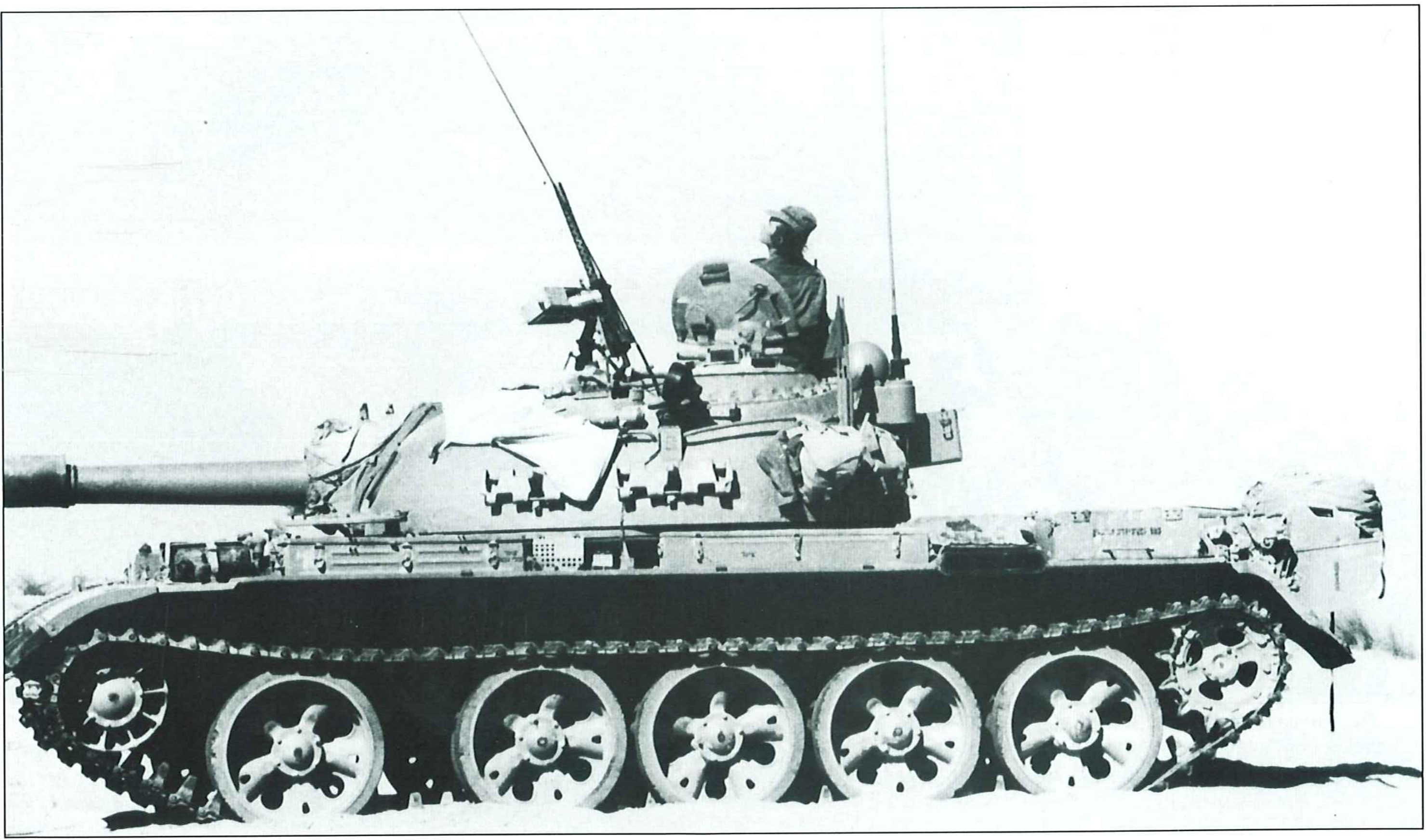
A pair of M60A1 tanks prepare for movement on 6 October 1973 during the opening stages of the war. These tanks still lack the usual tactical markings, except for a unit insignia on the left fender. (IDF Spokesman)



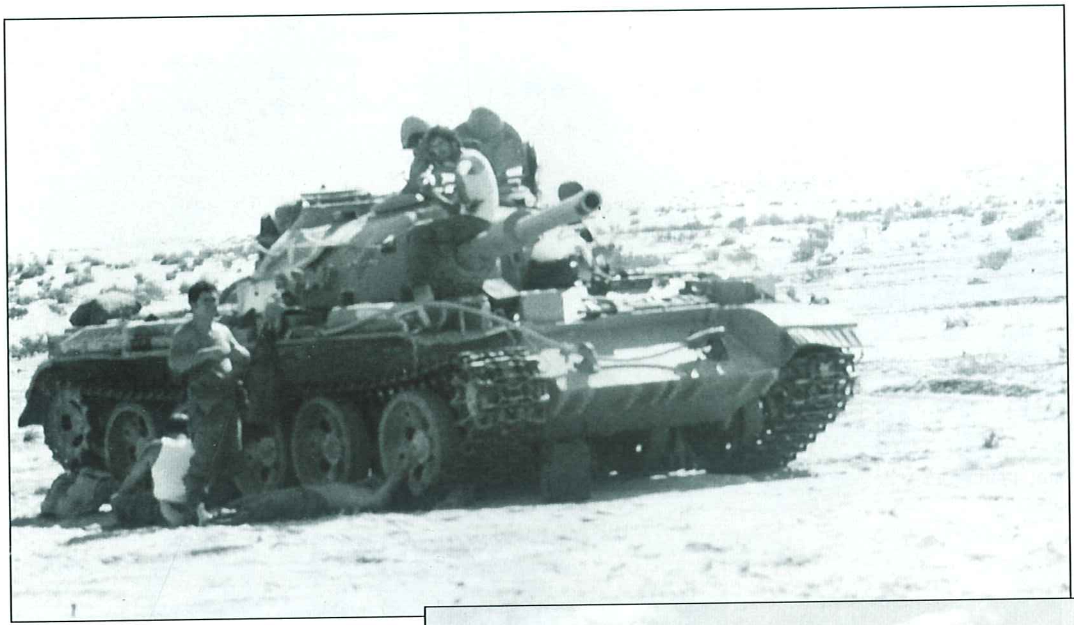
A company of Magach tanks undergo final maintenance before setting out for combat during the October fighting.



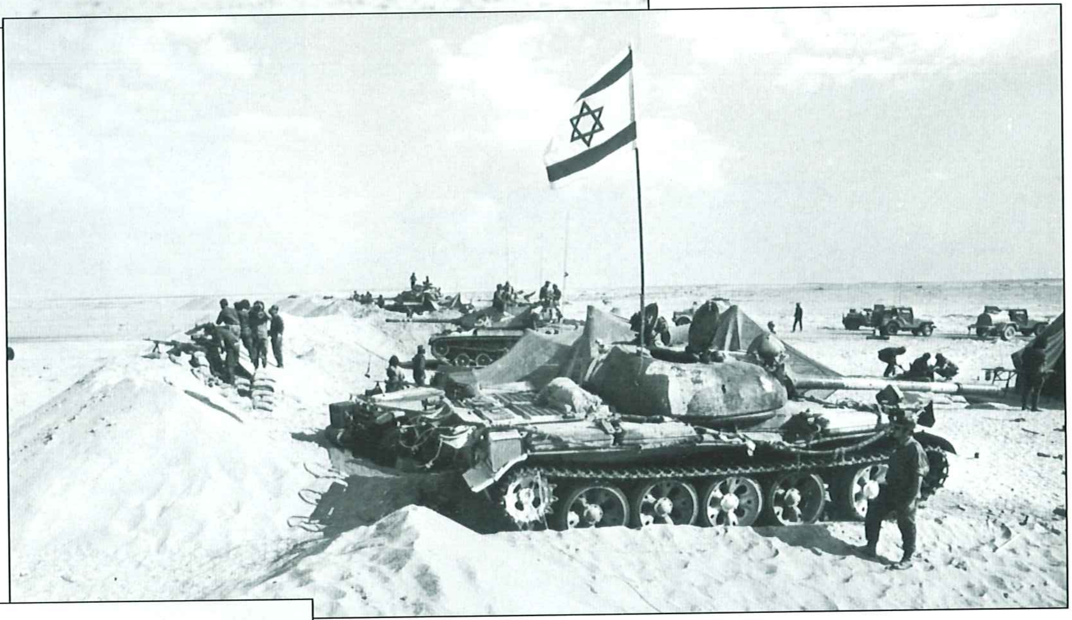
A Magach from Major-General Ariel "Arik" Sharon's reserve ugdat takes up a defensive firing position forward of bridging equipment being rushed to the Suez Canal area, October 15, 1973. A .50 caliber heavy machine gun is mounted on the searchlight attachments at the top of the gun mantlet. (IDF Spokesman)



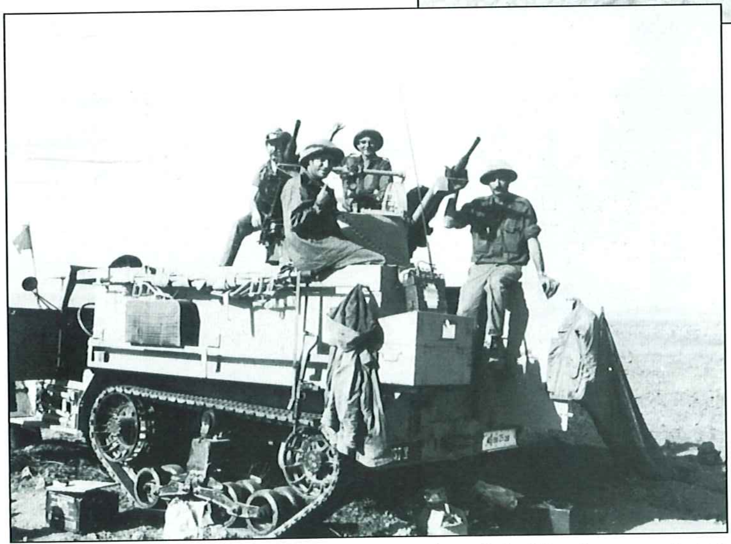
The Israeli Ordnance Corps reconditioned several dozen T-54A tanks captured in the 1967 war, and re-armed them with 105mm guns. These were sometimes called TI-67. They were committed to the Sinai fighting with the 11th Armored Brigade, later called the Gonen Force. This is a battalion command tank with additional radios. Several of the Israeli modifications are evident in this view, including the track links on the turret, stowage bin on the hull rear, additional radio pots, and a Browning .30 cal machine gun. The canvas panel on the turret is a fluorescent yellow/orange air identification panel. (IDF Spokesman)



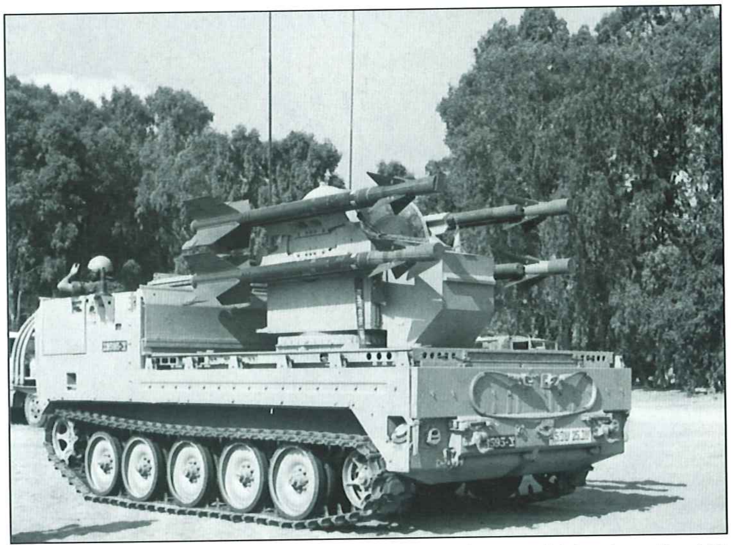
A modified T-54A of the 11th Reserve Armored Brigade undergoes final maintenance before being committed to combat. This unit was part of the Ugdat Kalman which fought with the Southern Command during the Sinai fighting in October 1973. (IDF Spokesman)



A knocked out Egyptian T-55 serves as a flag-post stand for an Israeli M60A1 tank company along the Suez Canal in mid-October 1973. The tanks are resting behind sand berms, more for concealment than for protection.

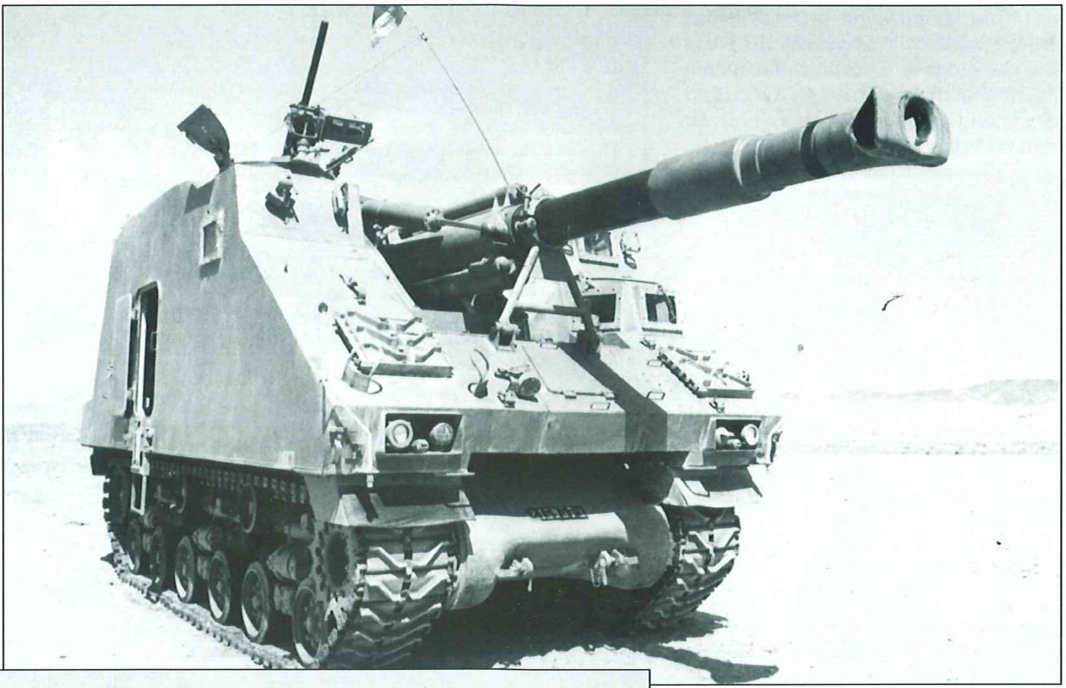


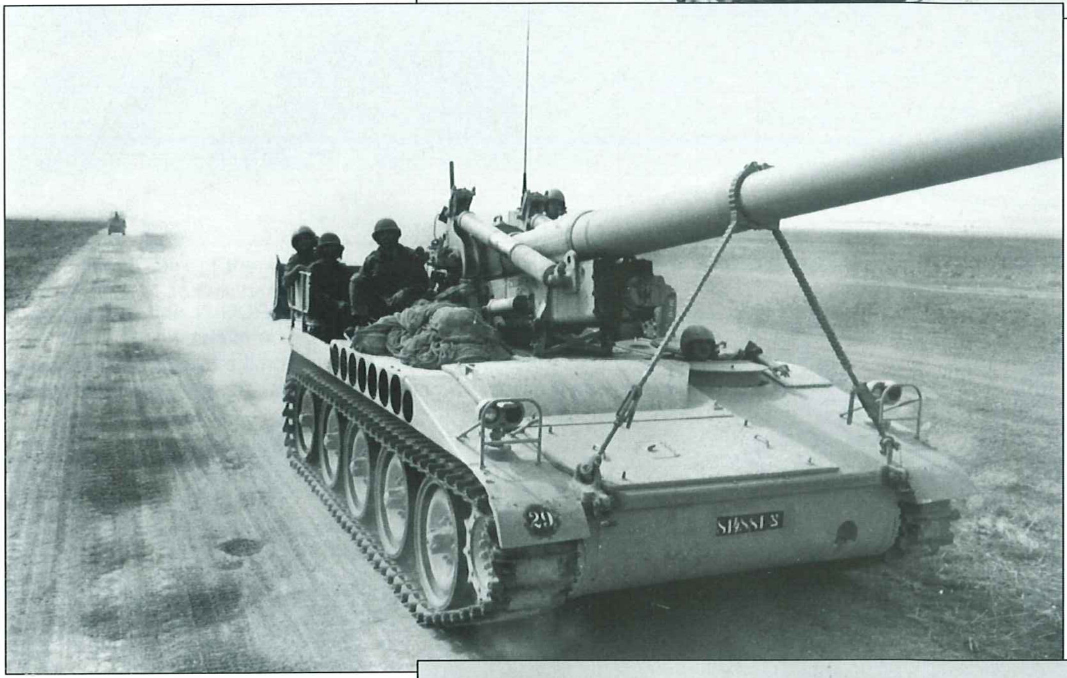
By the time of the 1973 war, most Israeli half-tracks were being withdrawn from infantry units and rebuilt for specialized roles. One of the more numerous types was this TCM-20 air defense variant. This was a conversion of the old US Army M55 trailer mounted quad .50 cal machine gun system, carried out by the MBT Division of IAI starting in 1969. A pair of Hispano Suiza HS 404 20mm cannons were substituted for the machine guns, and other improvements carried out. During the 1970 War of Attrition, 10 aircraft were claimed by these systems. In the 1973 war, these weapons were credited with 60% of the aircraft claimed by Israeli ground defenses. (Israeli Government Press Office)



Israel ordered 26 M48A1 Chaparral air defense vehicles from the US before the outbreak of the war, but most were not delivered until 1974. The Chaparral is basically a ground launched version of the Sidewinder air-to-air missile, mounted on a modified version of the M548A1 tracked vehicle, the M730A1. (Israeli Government Press Office)

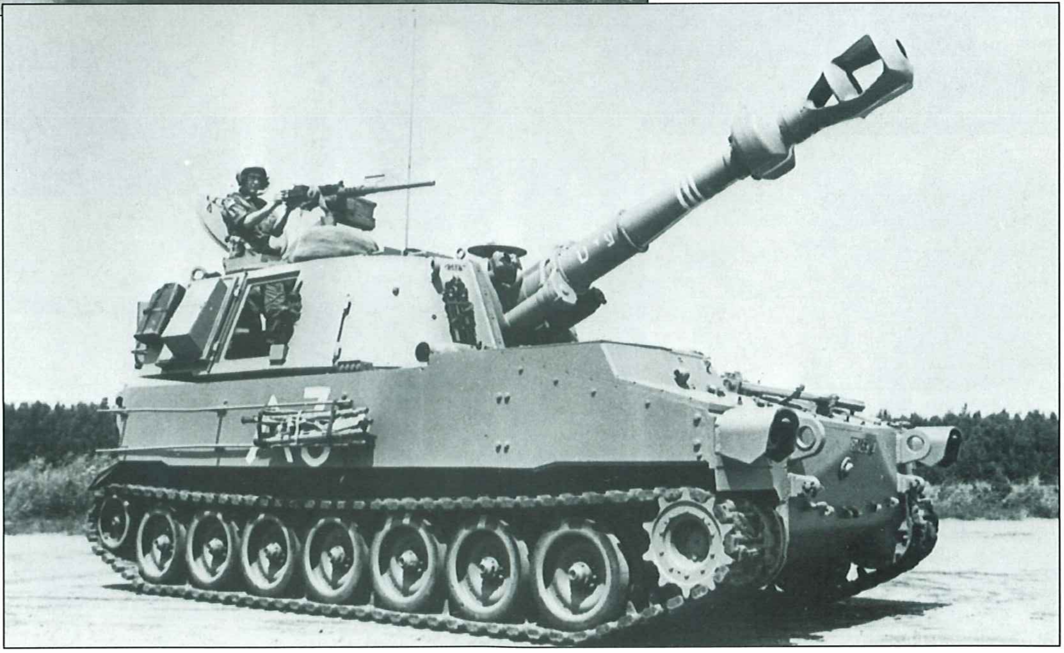
Soltam began manufacturing the M68 155mm gun-howitzer shortly after the 1967 war (also known as the L-33), and a self-propelled variant was built, using obsolete Sherman tank chassis. These were used on both the Sinai and Golan fronts in the 1973 war. (IDF Spokesman



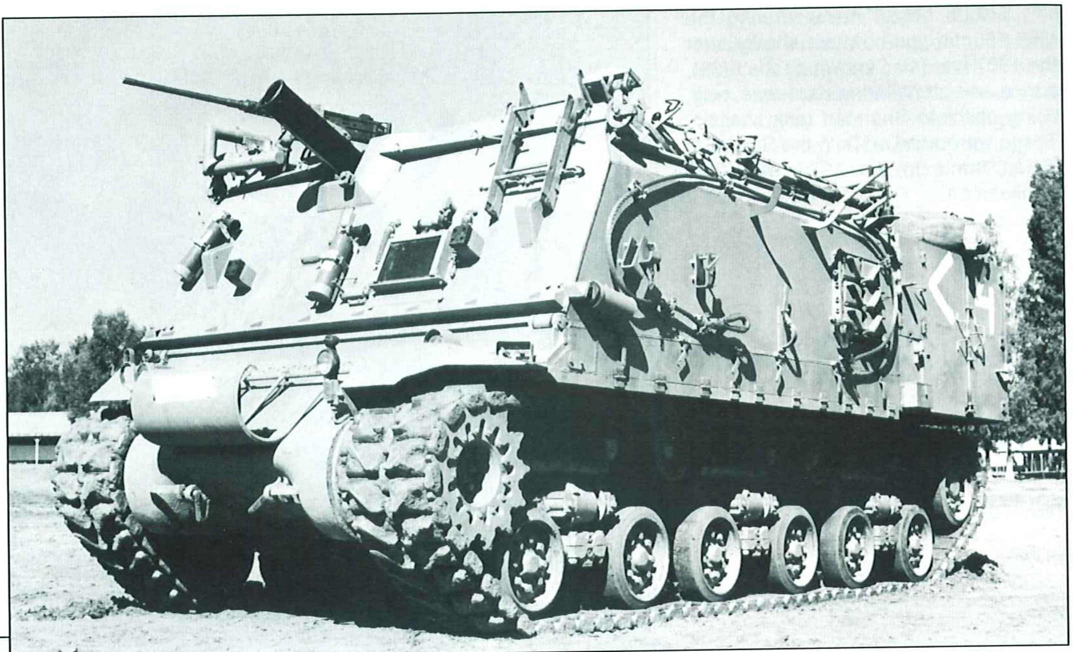


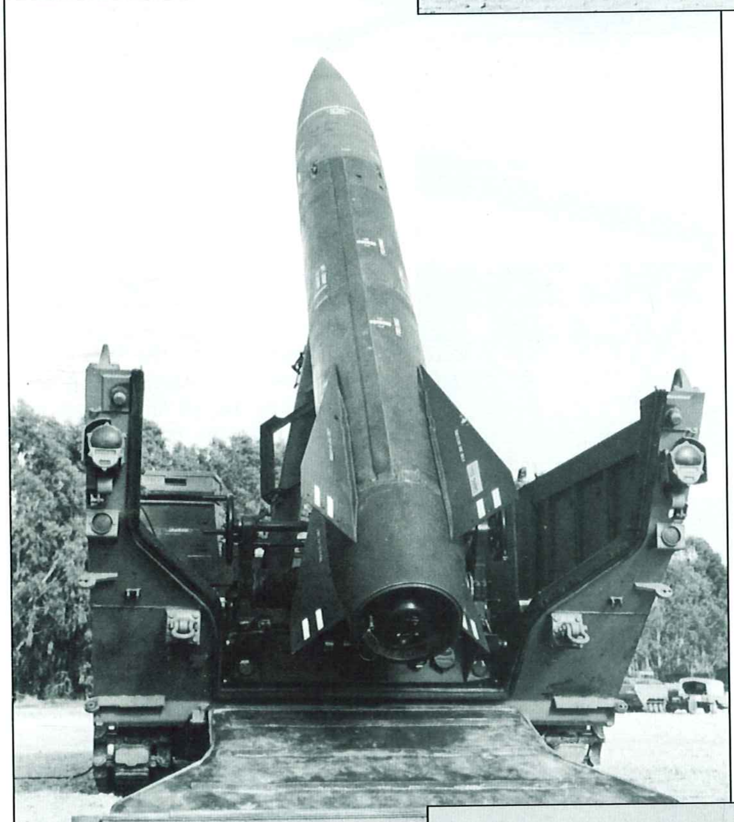
The longest ranged artillery system in Israeli service in 1973 was the M107 175mm gun of which 48 had been ordered in 1971-72. This system has remained in service long after retirement by the US Army, which was unhappy about the gun barrel's short life. (IDF Spokesman)

The least common self-propelled gun in Israeli service in 1973 was the M109 155mm howitzer. There were 24 of these ordered in 1969. These proved considerably more effective than the improvised 155mm howitzers on old Sherman chassis used in other Israeli artillery units, and after the war, the M109 was ordered in large numbers. (Israeli Government Press Office)

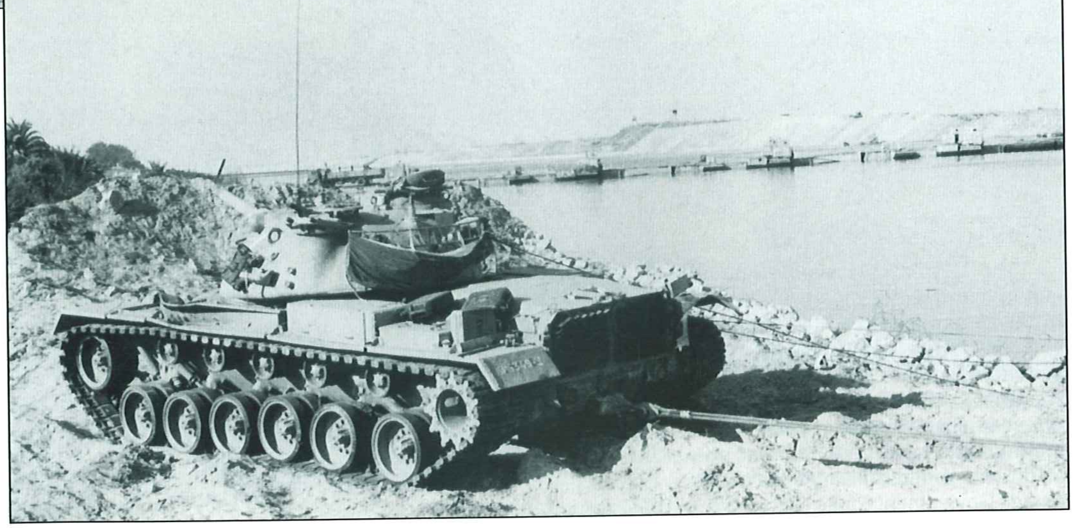


One of the more unusual Israeli artillery systems in service in 1973 was this self-propelled version of the Soltam 160mm mortar, mounted on a modified Sherman tank chassis by the Keren-Or firm in Haifa.

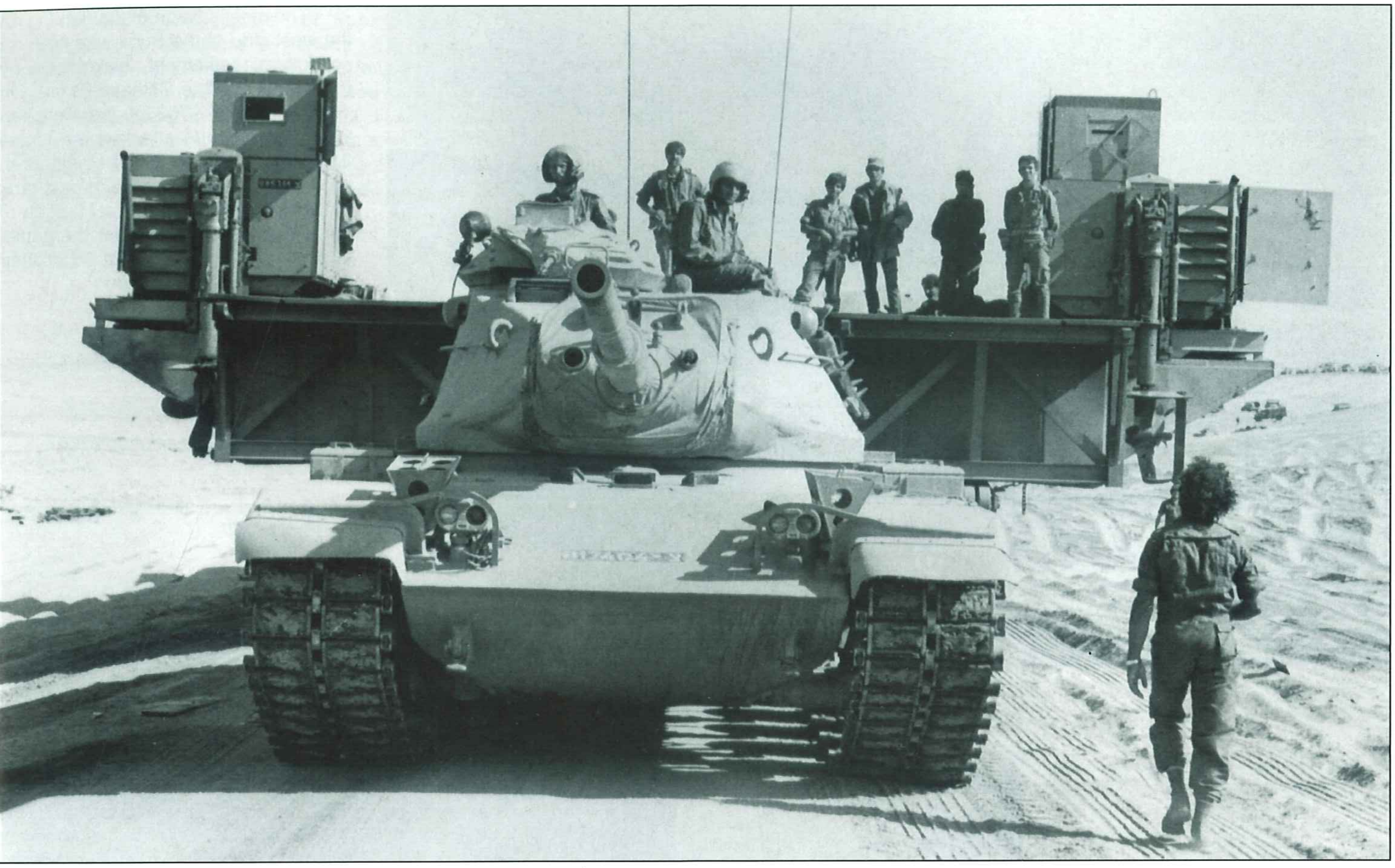




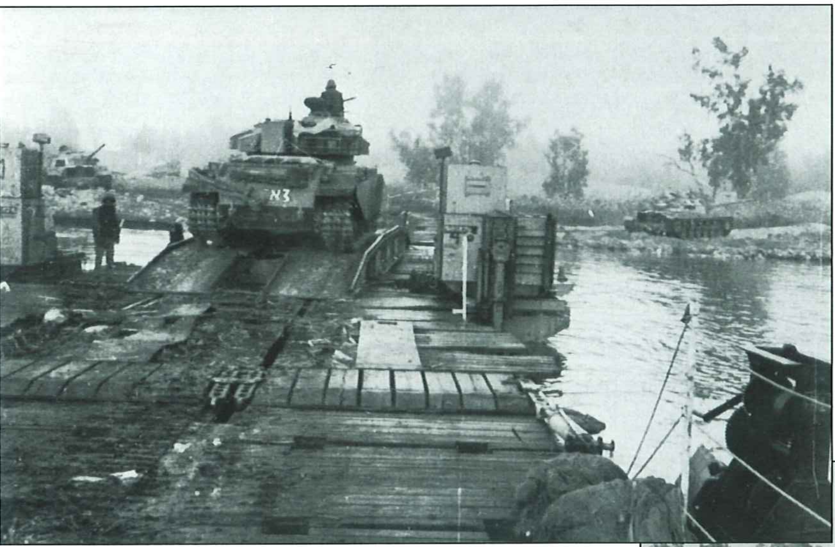
The Soviet Union's supply of Luna-M (FROG-7) and Elbrus (Scud) missiles to Egypt before the Yom Kippur war prompted Israel to seek American Lance battlefield missiles mounted on the M667 tracked chassis. These were not delivered until after the 1973 war. (Israeli Government Press Office)



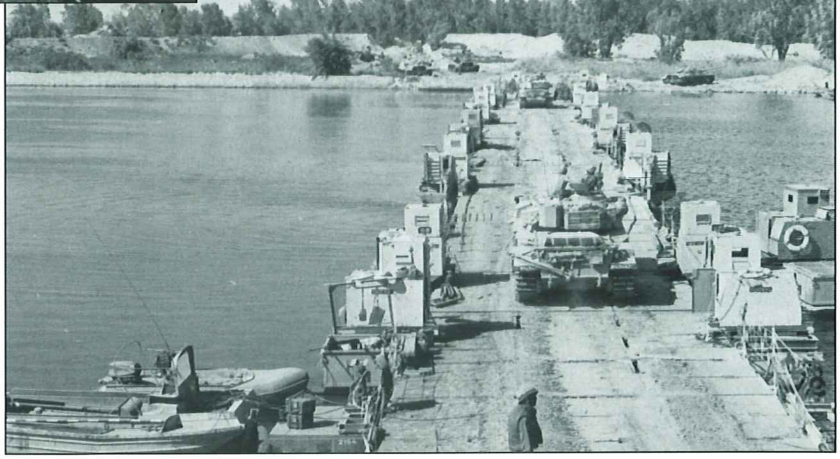
On the late afternoon of 15 October 1973, the Israeli Southern Command staged a westward crossing of the Suez Canal, aimed at splitting the Egyptian 2nd and 3rd Armies, and trapping as many Egyptian forces as possible. Here a Magach overlooking one of the pontoon bridges is recovered by an Ordnance team. (IDF Spokesman)



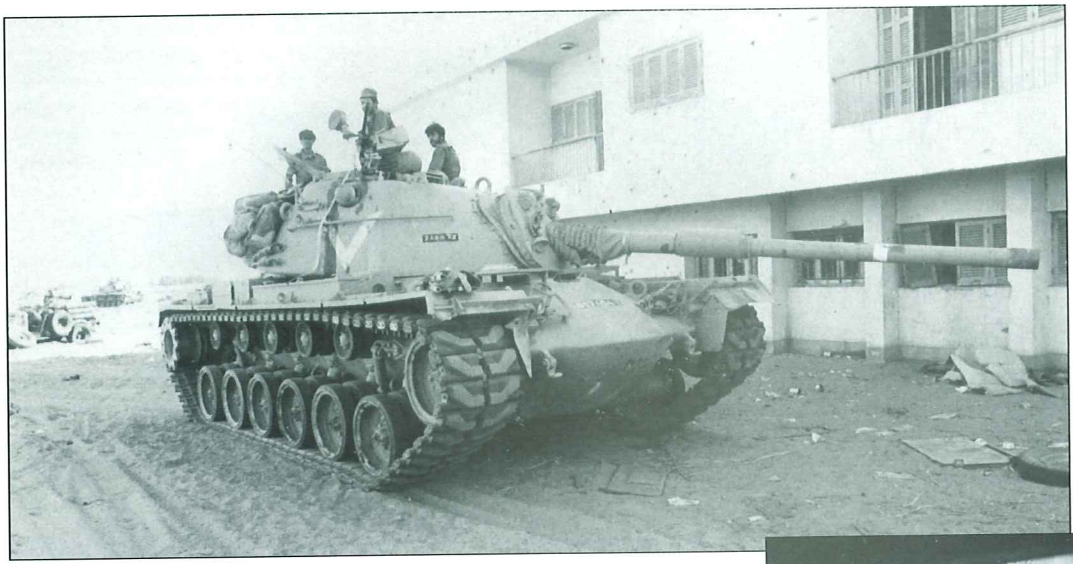
A M60A1 tank of the 460th Armored Brigade tows a portion of a Gilowa pontoon bridge towards the "Yard" crossing point on the Suez during the counterattack of 16 October 1973. (IDF Spokesman)



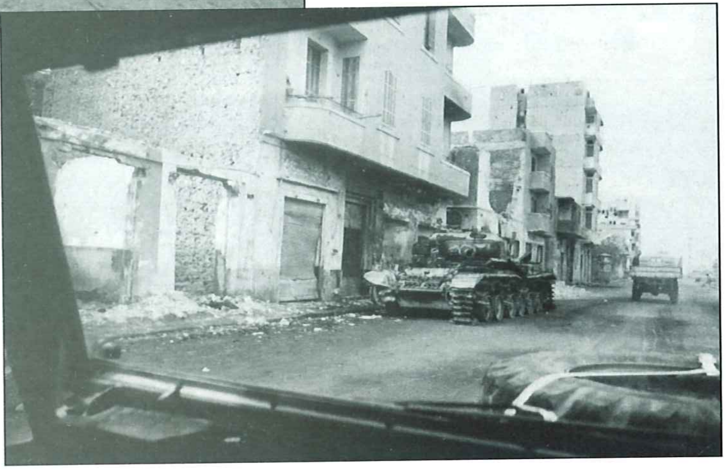
A Centurion Shot moves over one of the pontoon bridges over the Suez Canal during the Israeli counteroffensive into Egypt in mid-October 1973. The Ugdat Sharon pressed northward against the southern flank of the Egyptian 2nd Army, while the Ugdat Magen and Ugdat Bren pushed south towards the Gulf of Suez to cut off the Egyptian 3rd Army. (IDF Spokesman)



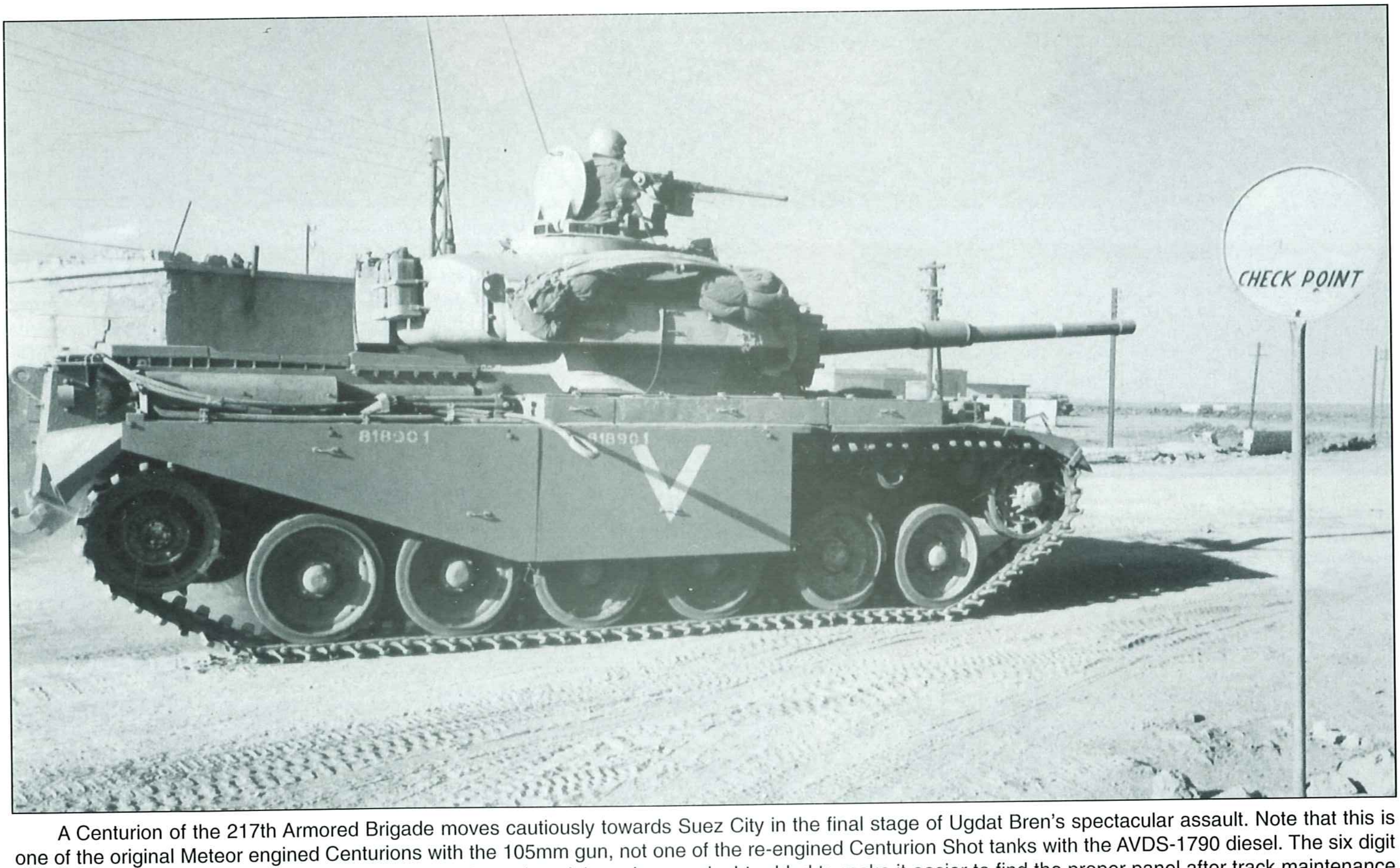
Another view of one of the main pontoon bridges over the Suez Canal as several Centurion Shot tanks move into Egypt. Although the move surprised the Egyptian forces, there were several days of savage fighting as the Israelis tried to expand their bridgehead. (Israeli Government Press Office)



The most savage of the fighting on the west side of the Suez was near an agricultural settlement, nicknamed by the Israelis as "the Chinese Farm". On 17 October, 96 T-62 of the Egyptian 25th Tank Brigade attacked the Israeli 217th Armored Brigade of Ugdat Bren near the farm in one of the largest tank battles of the war. This is a Magach of the Israeli force shortly after the battle, in which the Egyptians lost 86 of their 96 tanks. (IDF Spokesman)

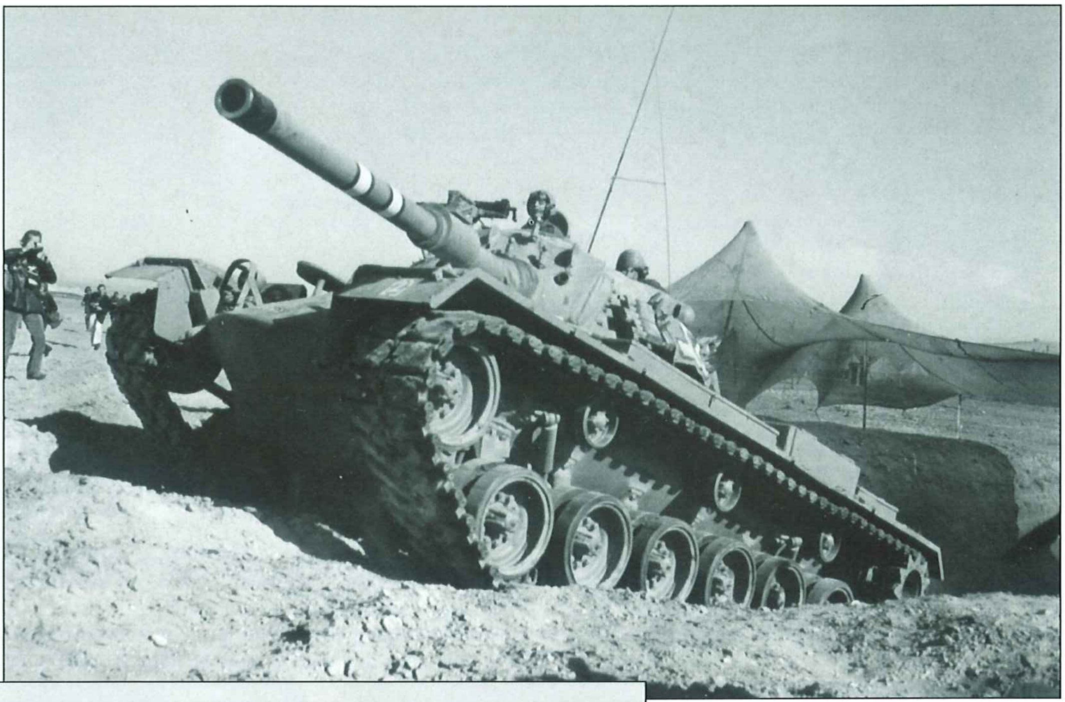


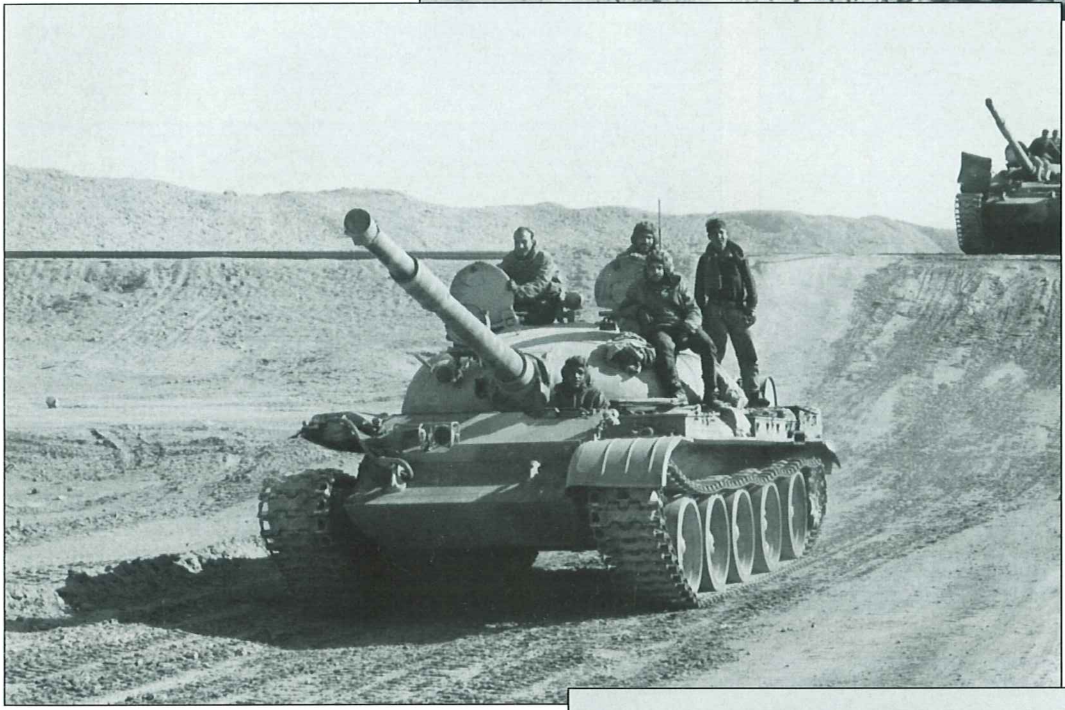
One of the southern-most points reached by Ugdat Bren was Suez City on the Gulf of Suez. This is an Israeli Centurion Shot knocked out in the streets of Suez City during the savage fighting there in late October 1973.



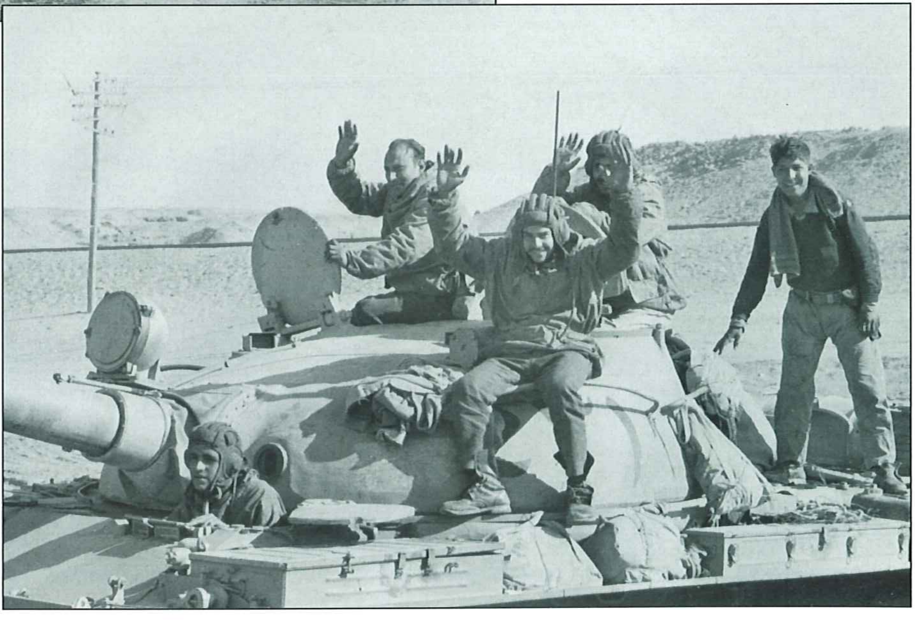
A Centurion of the 217th Armored Brigade moves cautiously towards Suez City in the final stage of Ugdat Bren's spectacular assault. Note that this is one of the original Meteor engined Centurions with the 105mm gun, not one of the re-engined Centurion Shot tanks with the AVDS-1790 diesel. The six digit numbers painted on the removable side skirts are the tank serial number, no doubt added to make it easier to find the proper panel after track maintenance is undertaken.

Following the capture of Suez City and the resulting encirclement of the Egyptian 3rd Army, Egypt sued for peace. Over the next year, the United Nations managed a staged withdrawal of Israeli and Egyptian forces. This is a Magach driving out of a fighting position during the withdrawal process. (Israeli Government Press Office)

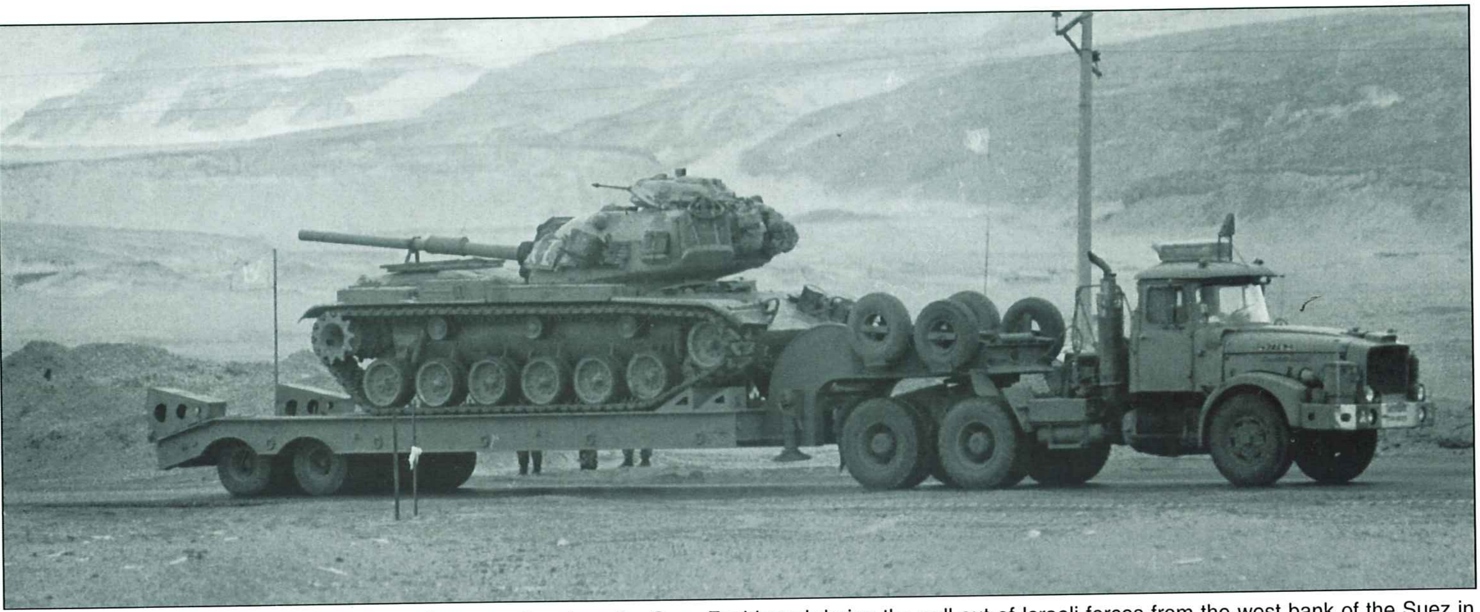




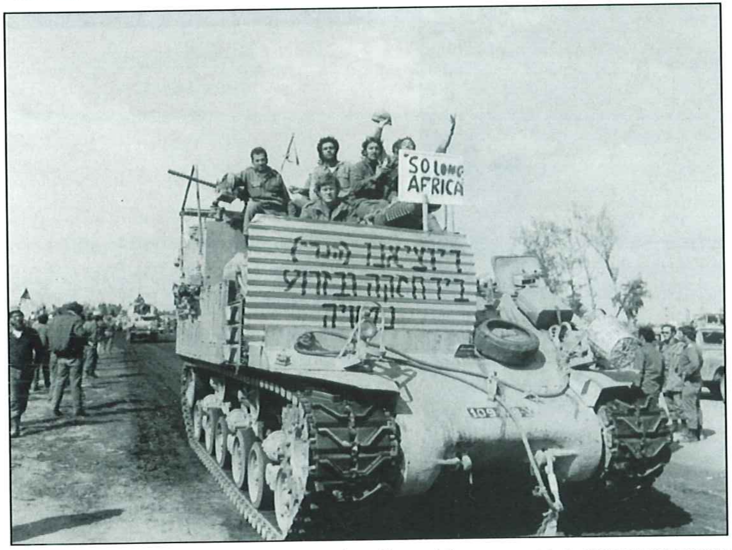
A T-62 tank of an Egyptian tank brigade of the 3rd Army near El Kabrit moves out of its positions during the disengagement in February 1974. This vehicle was finished in patches of field drab over sand. (United Nations/Y. Nagata)



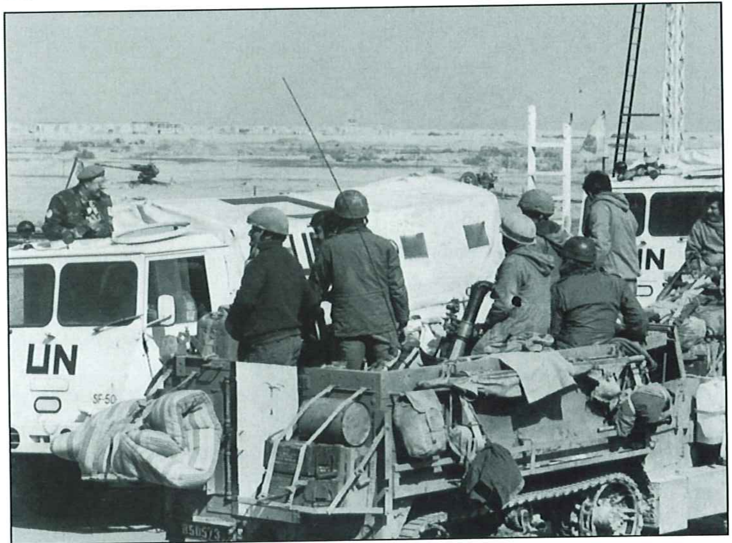
The crew of a T-62 tank from the Egyptian 3rd Army is evidently happy to be returning home during the UN-sponsored disengagement near El Kabrit in February 1974. (United Nations/Y. Nagata)



An Israeli M60 is carried away on a tank transporter along the Suez-Fayid road during the pull out of Israeli forces from the west bank of the Suez in February 1974. This is the initial version of the M60 tank, distinguishable by its shorter turret bustle compared to the M60A1. Tank transporters were widely used by all sides to minimize the amount of wear and tear on the tanks during long unit transfers. (United Nations/Y. Nagata)



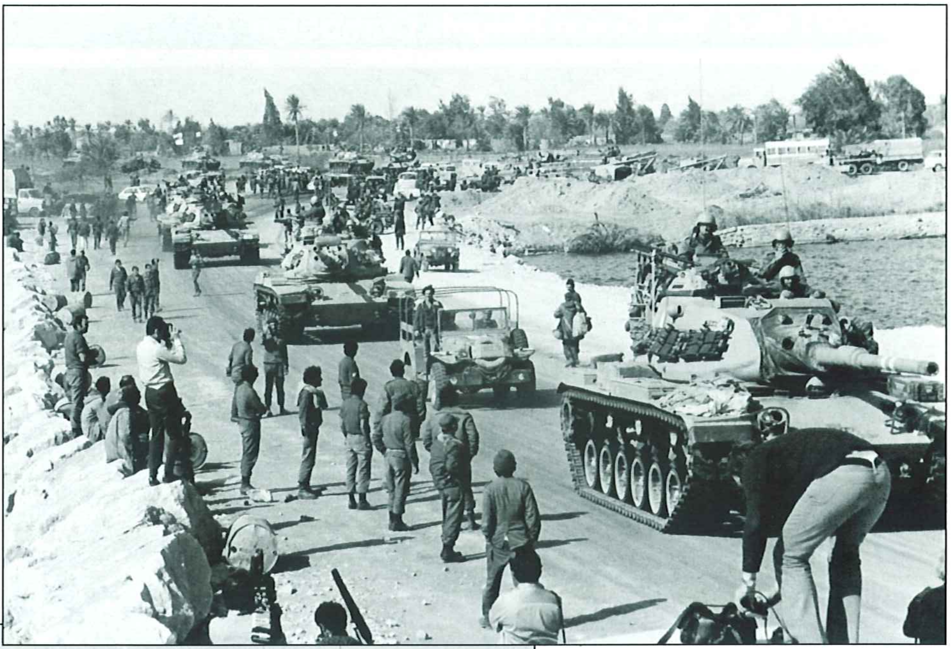
A M50 self-propelled 155mm howitzer drives across a causeway near Deversoir during the February 1974 disengagement. (United Nations/Y. Nagata

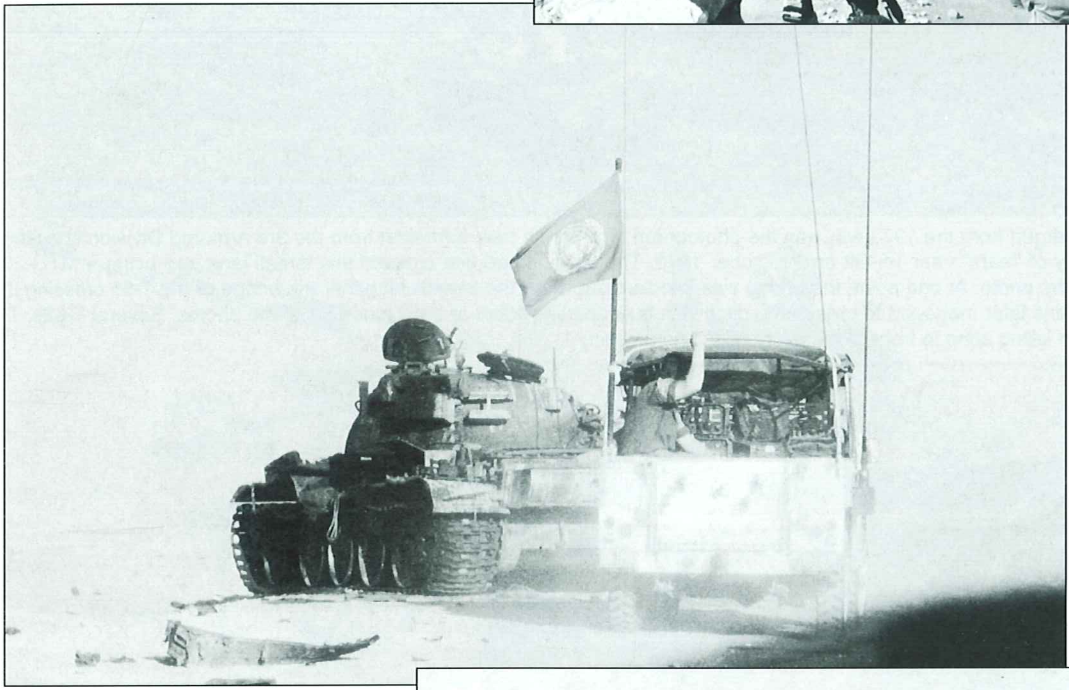


An Israeli M3 half-track passes a UN inspection vehicle during the Suez disengagement. This half-track is fitted with an 81mm Soltam mortar, a common use for the half-tracks after they were withdrawn from service as infantry transporters. (Israeli Government Press Office)

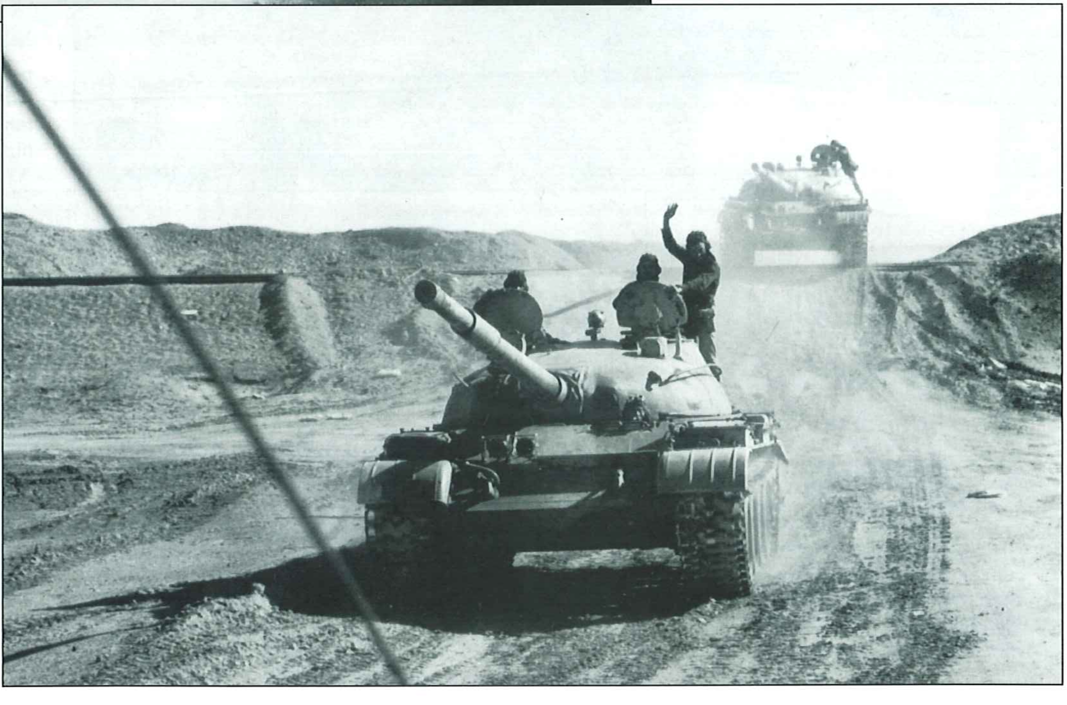
A pair of M50 Super Shermans are transported out of the Abu Rodeis area on the Gulf of Suez during the disengagement. Tank casualties during the 1973 war were so heavy that the Israeli Army was forced to draw tanks out of its war reserves, like these obsolete M50s. (United Nations/Y. Nagata)

In the Deversior area, the Israeli engineers created a causeway to help move troops back to the east bank of the Suez. Here, a M60A1 armored brigade is being withdrawn during the February 1974 disengagement. (United Nations/Y. Nagata)



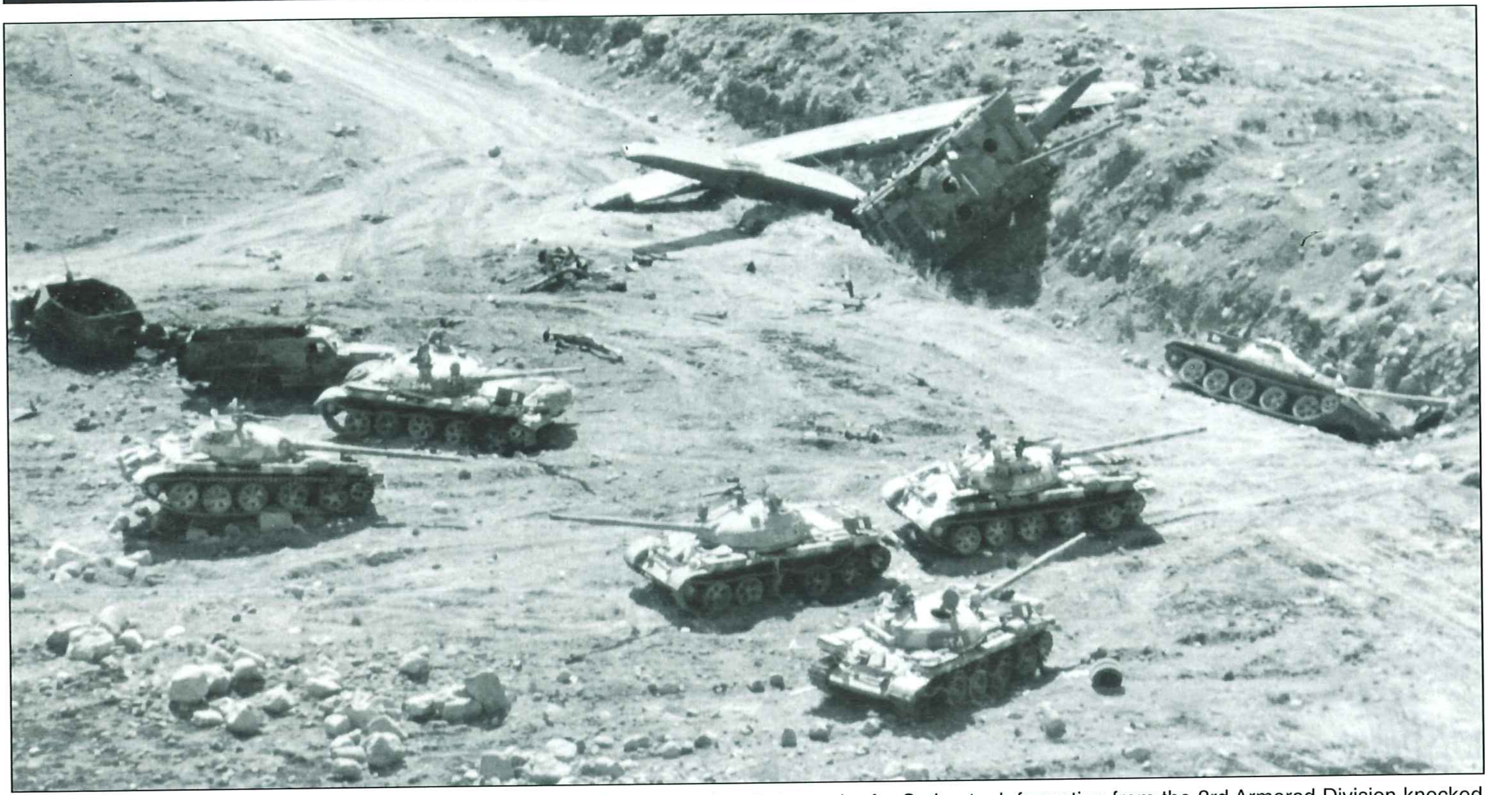


A UN truck convoy passes a burned out Israeli TI-67 near Rabah, about 50 km east of the Suez. This was probably a TI-67 of the Gonen Force. It can be distinguished from a normal Egyptian T-54A by extensive fittings added by the Israeli Ordnance Corps on the rear of the vehicle. (United Nations/Y. Nagata)



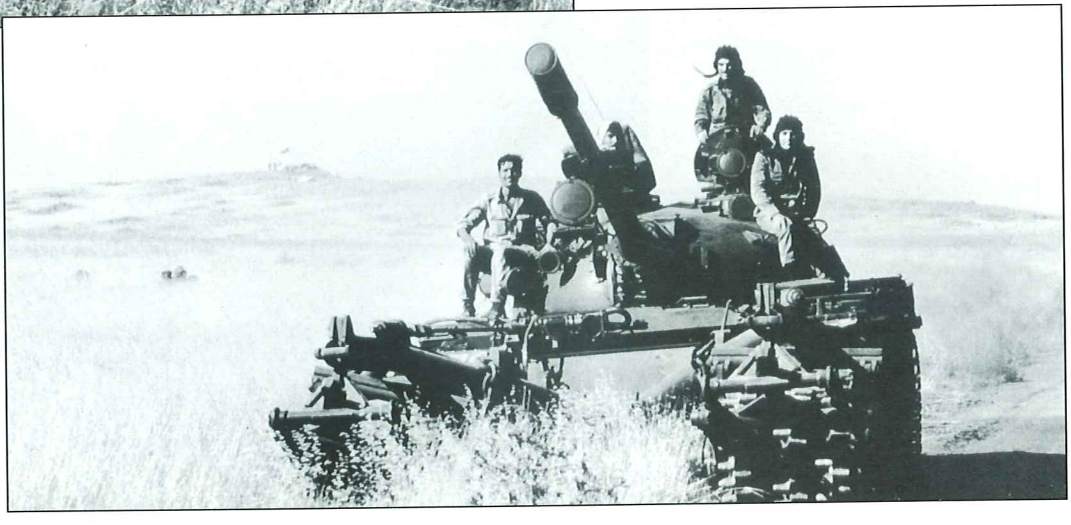
Egyptian T-62s of the 3rd Army pull back across the Suez near the south end of the Great Bitter Lake in February 1974. Most of the Egyptian T-62s in 1973 were the initial model which lacked the 12.7mm DShK machine gun over the loader's hatch. (United Nations/Y. Nagata)

The 1973 War: The Golan Heights Campaign



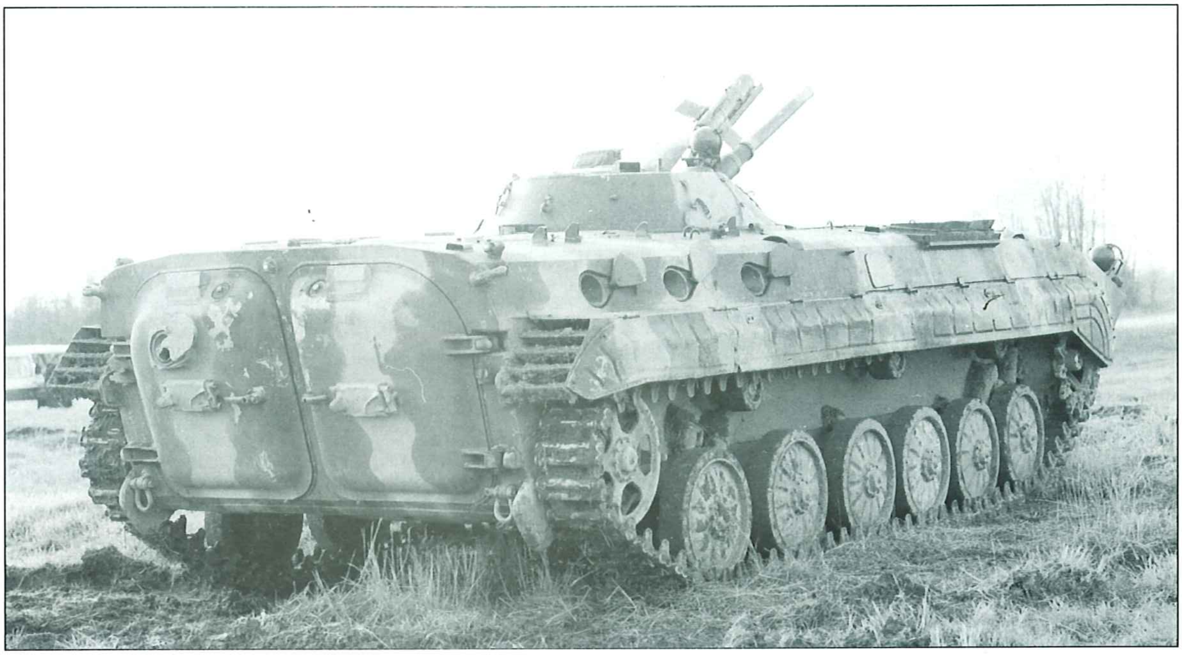
One of the classic images to have emerged from the 1973 war was the photograph of a Syrian tank formation from the 3rd Armored Division knocked out during the savage fighting in the "Valley of Tears" near Tel-Git on 8 October 1973. The Syrians had first crossed this Israeli tank trap using a MTU-20 tank-launched bridge evident at the top of the photo. At one point, the bridge was knocked out when the Israelis hit either the bridge or the T-55 crossing it, which then fell into the tank ditch. The Syrians later managed to breach the ditch with bulldozers, evident at the lower right of the photos. Several T-62s, T-55s and BTR-152s were knocked out in the killing zone in front of the ditch. (IDF Spokesman)

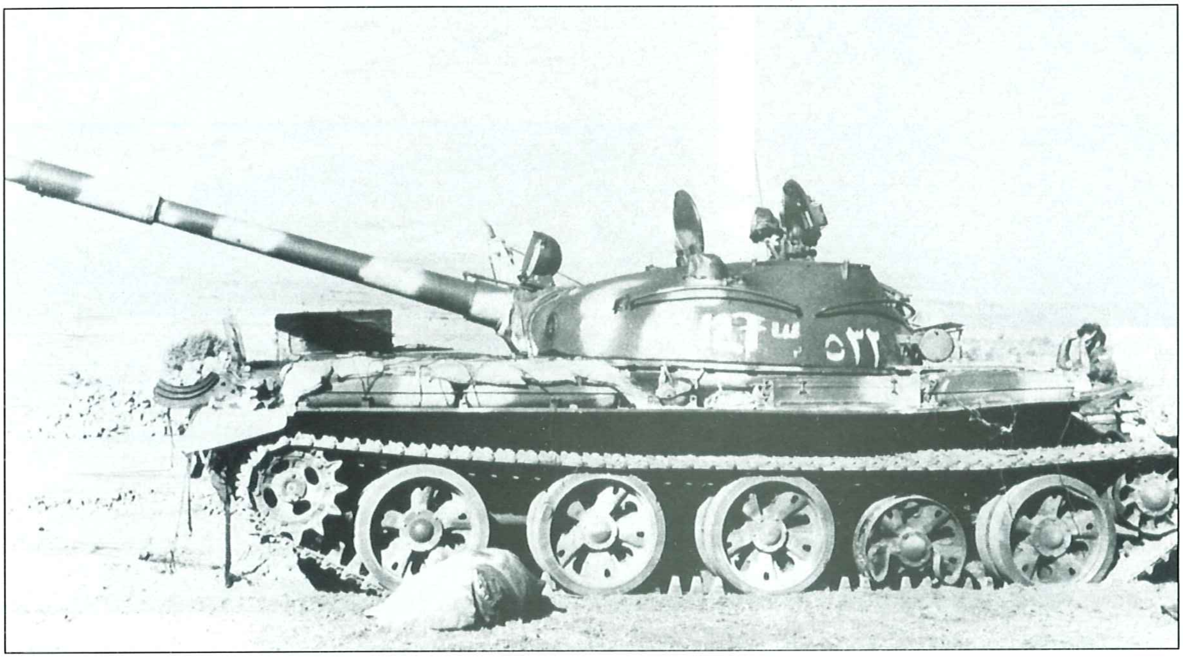
Syrian armored casualties in the fields near Rafid during the fighting for the Golan Heights. The Syrian force includes two T-55 tanks as well as two BMP-1s. The tactical number on the nearest of the T-55s is 410.



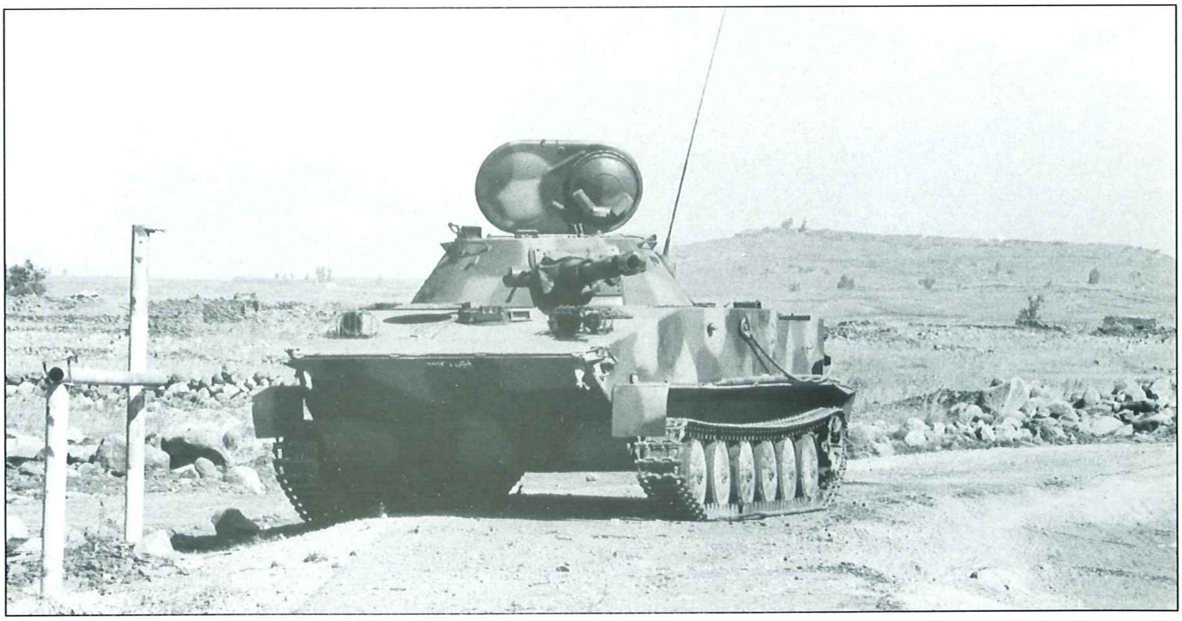
The Syrians made extensive use of combat engineer tanks to breach Israeli defensive belts in front of their positions on the Golan Heights. This is a T-55 tank fitted with a PT-54 mine-roller.

The combat debut of the BMP-1 took place on the Golan Heights during the fighting on 8 October 1973. The Syrians were not entirely happy with the BMP-1, viewing it as the "expensive sports-car" of armored troop carriers. Many were lost due to mechanical breakdowns and the inexperience of their new crews. The Syrian BMPs were finished in the usual Syrian scheme of Soviet dark green with earth and gray blotches.

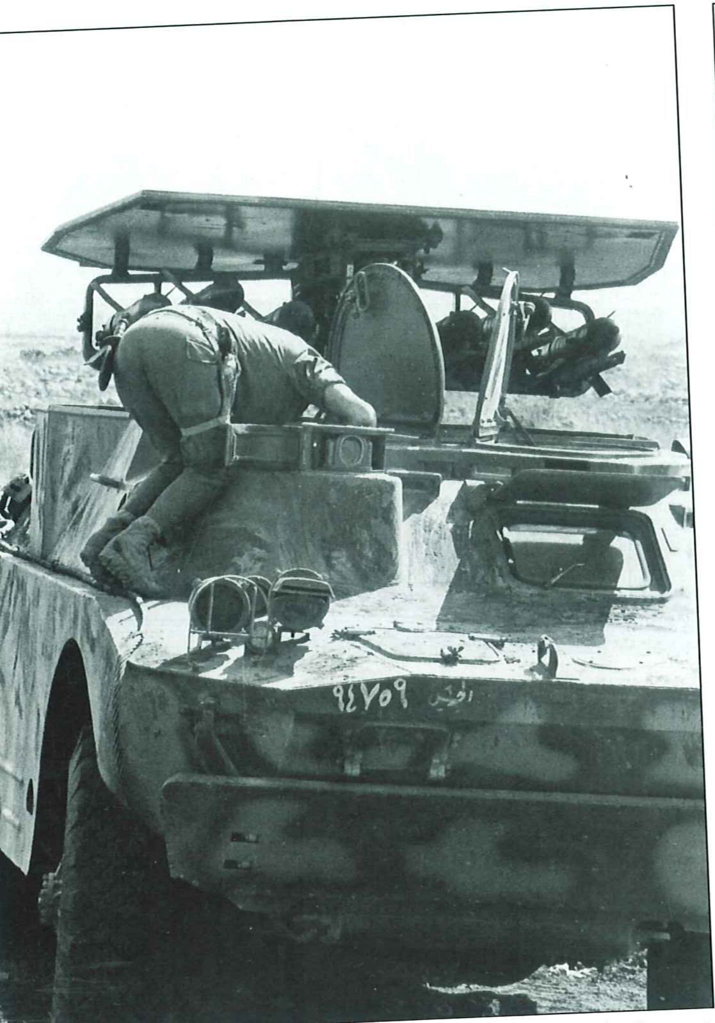




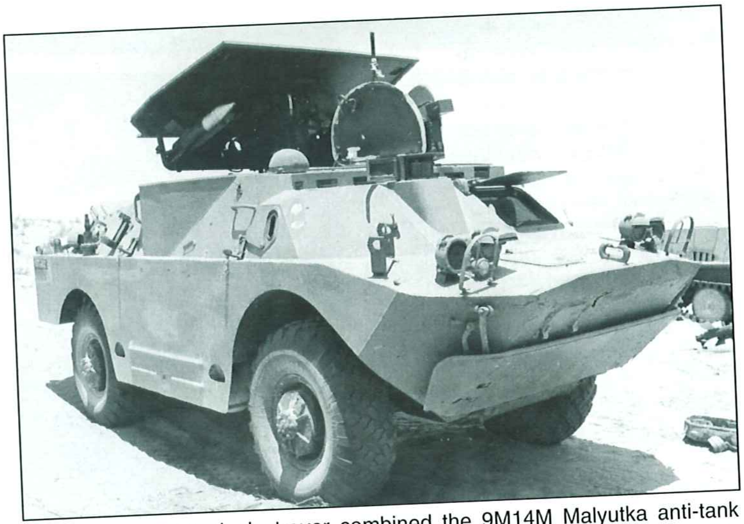
The most potent Syrian tank during the Golan Heights fighting was the T-62. This T-62 Model 1972, numbered 532, was lost to a mine as is evident from its second roadwheel. It is being recovered by an Israeli Ordnance Corps team, which added the turret number 127Sh in white. The T-62 Model 1972 was characterized by a new loader's hatch fitted with a 12.7mm DShK anti-aircraft machine gun.



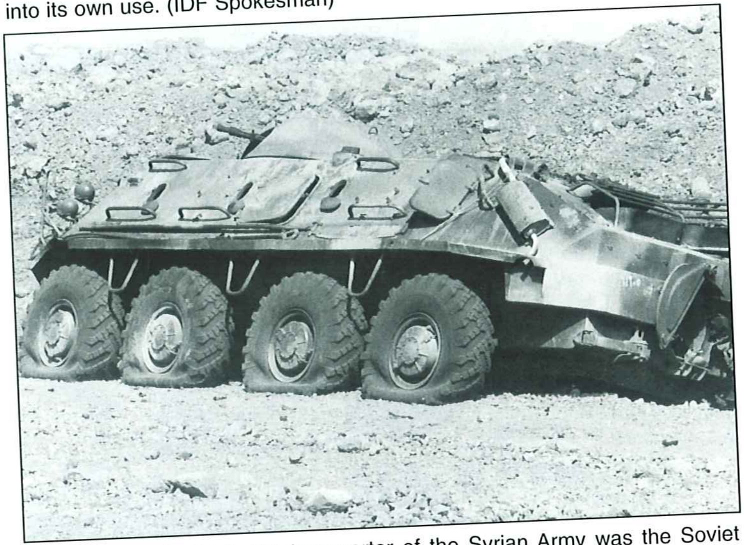
Syrian tank divisions were equipped on the Soviet pattern and used PT-76 tanks in their reconnaissance companies. This is a PT-76B abandoned on the Golan Heights near Ein Zivan. (IDF Spokesman)



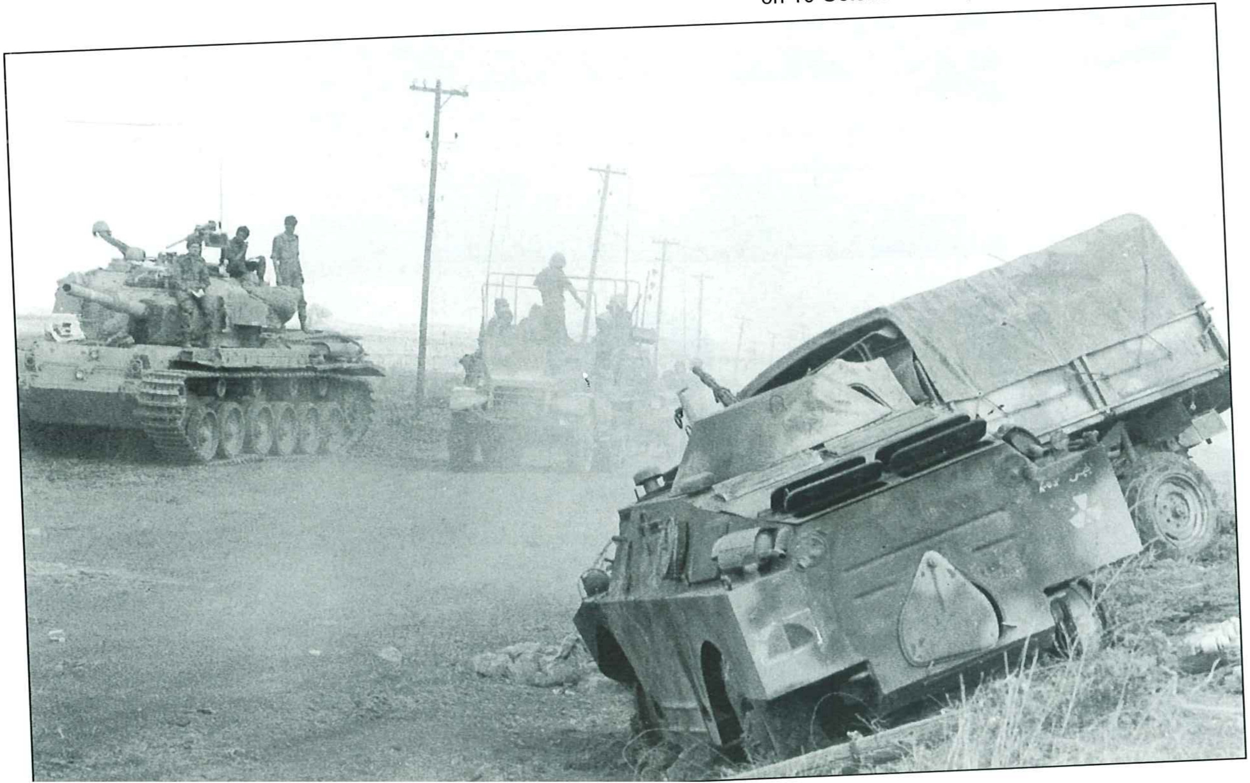
A 9P133 tank destroyer abandoned on the Golan Heights by its crew. The system is ready to fire, with the gunner's sight open as is evident below the elbow of the Israeli paratrooper searching the vehicle near Tel Shams. (IDF Spokesman)



The 9P133 tank destroyer combined the 9M14M Malyutka anti-tank missile with the BRDM-2 armored car to form a mobile tank destroyer. This particular 9P133 was captured by Israel in the 1973 war and later put back into its own use. (IDF Spokesman)

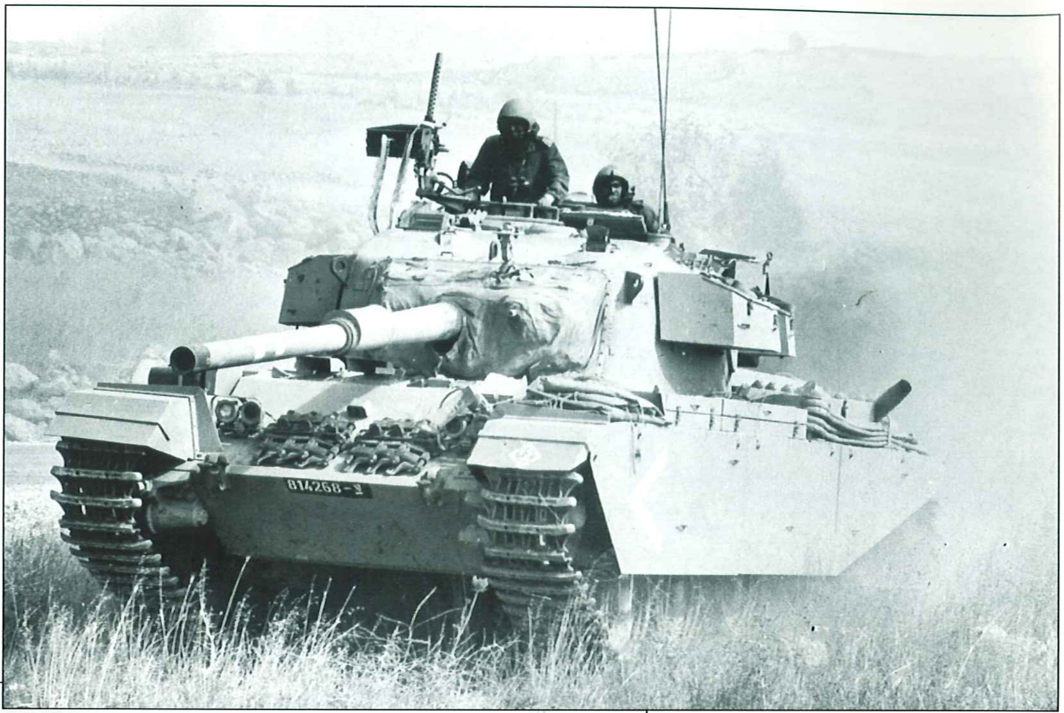


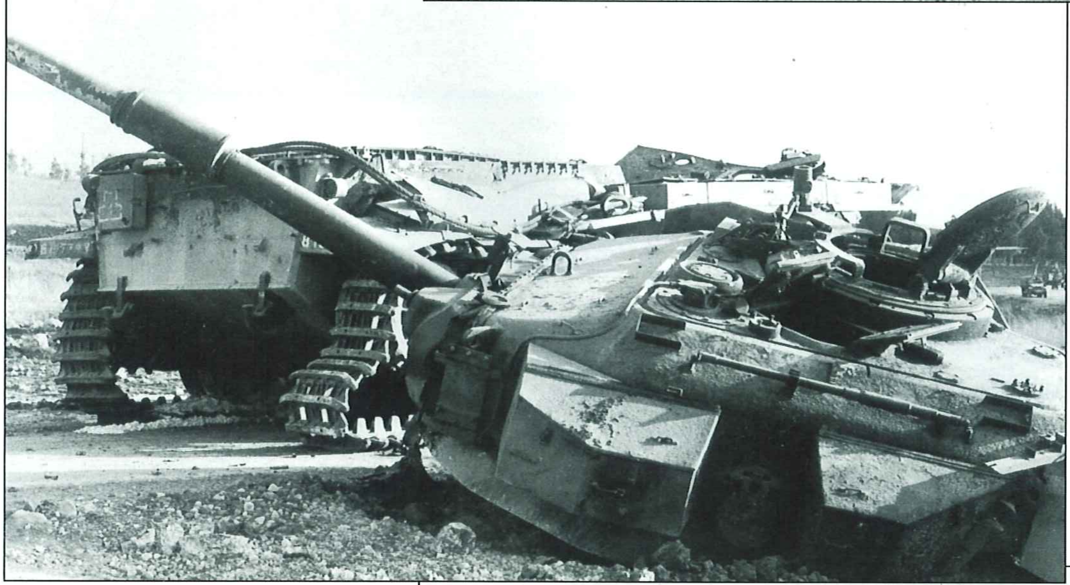
The standard infantry transporter of the Syrian Army was the Soviet BTR-60PB. This vehicle was knocked out on the road leading to Sindiana on 10 October 1973. (IDF Spokesman)



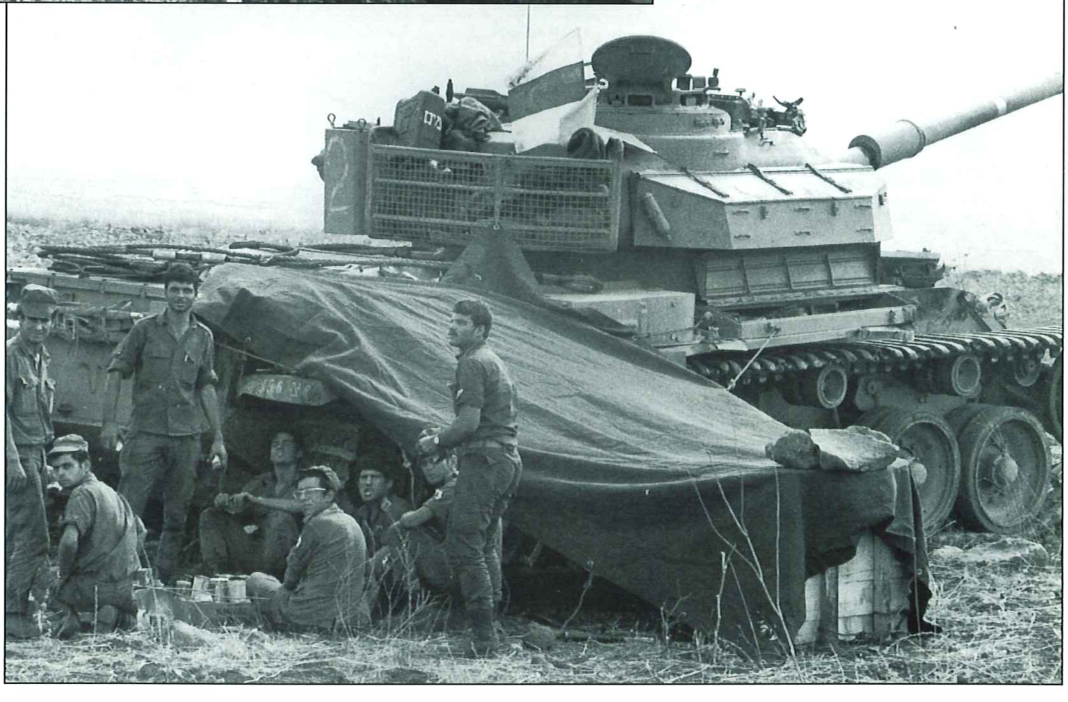
A column of Israeli vehicles led by a Centurion pass a wrecked Syrian BRDM-2 scout car and a truck on the road to Damascus on 10 October 1973. The BRDM-2 was the standard armored car in Syrian reconnaissance companies during the war. The vehicle carries standard Syrian tactical insignias, the meaning of which has not been disclosed. (IDF Spokesman)

An Israeli Centurion Shot moves forward on the Golan Heights during the 1973 fighting. Generally, the Centurion and its Centurion Shot variants were deployed to the Golan Heights where its suspension was preferred, while the more mobile Patton and its Magach variants were deployed to the Sinai. (Israeli Government Press Office)

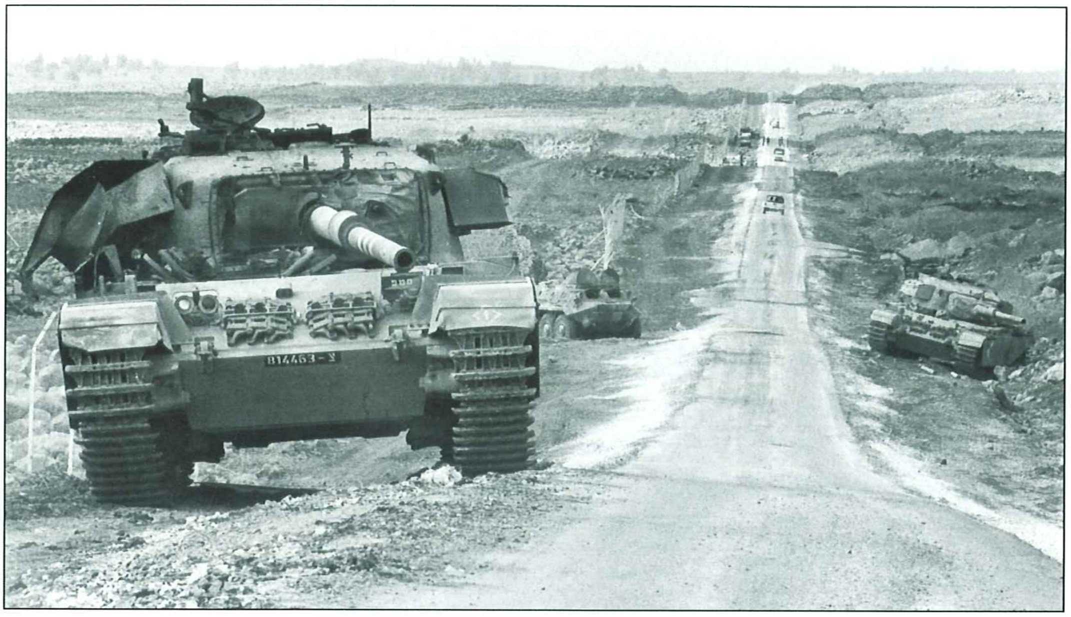




A grim reminder of the heavy price paid by Israeli tankers of the 188th Barak Armored Brigade during the heroic defense of the Golan Heights in October 1973. This Meteor-engined Centurion was destroyed by an ammunition fire in the fighting near Mutzav 107 (Defensive Position 107) overlooking the "Valley of Tears". (IDF Spokesman)

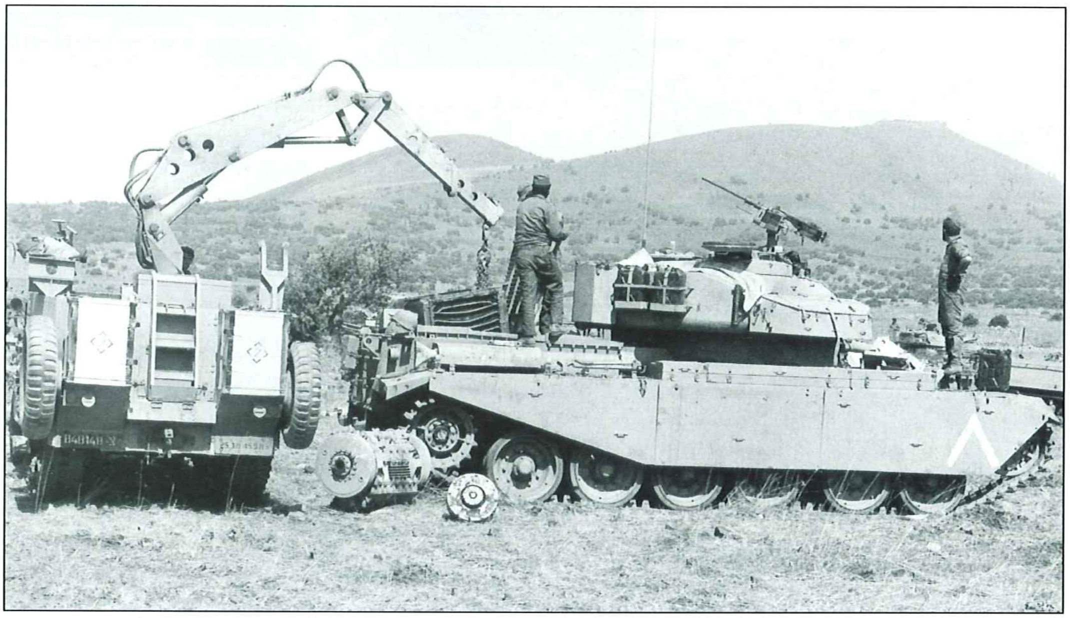


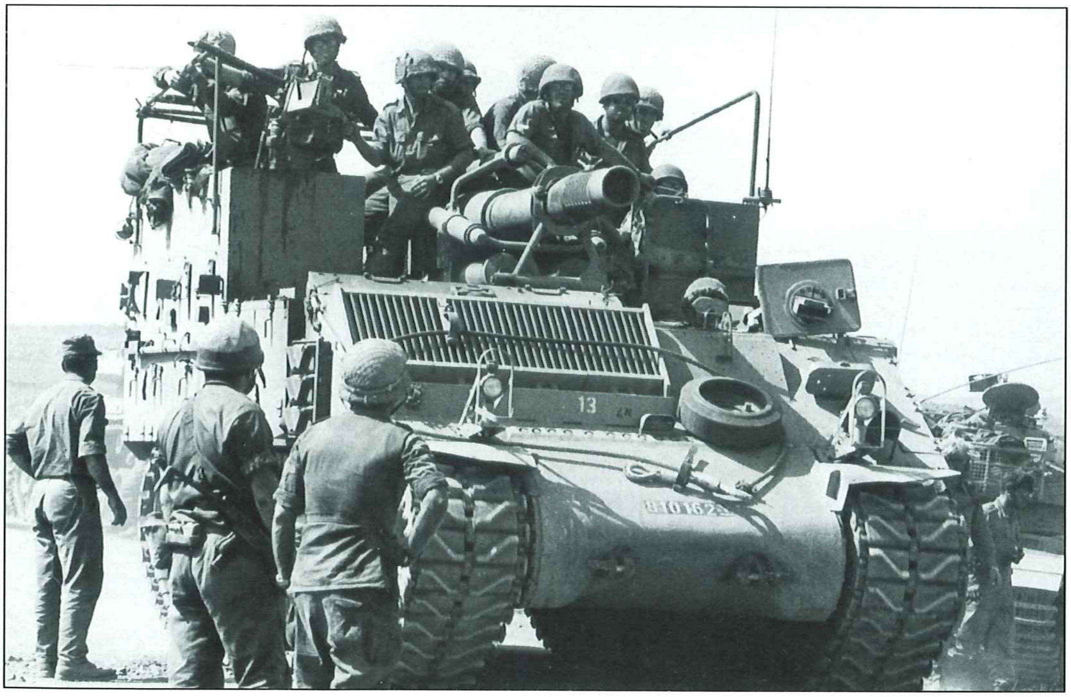
A Centurion Shot crew gets a short reprieve from combat and eats a meal following the battle for the "Valley of Tears". This tank has already lost its forward anti-bazooka skirts during the earlier fighting. (IDF Spokesman)



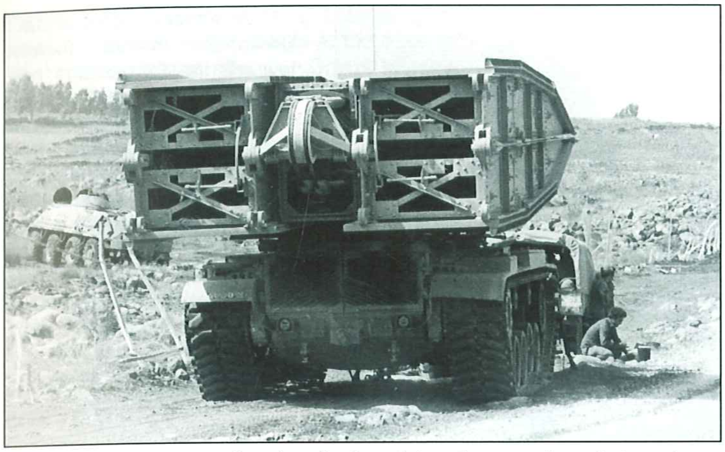
A Centurion Shot of a deputy company commander, knocked out during the fighting near Mutzav 107 in the "Valley of Tears". The vehicle has been burned out, and seems to have been hit on the right side of the turret, with the exterior stowage bin smashed. In the background is a knocked out Syrian BTR-60PB and another Centurion Shot. (IDF Spokesman)

A M3 half-track fitter's vehicle carries out engine repairs on a Centurion near Mutzav 110 during the Golan Heights fighting in October 1973. This is one of the older Meteor-engined Centurions, evident by its exhaust muffler. (IDF Spokesman)

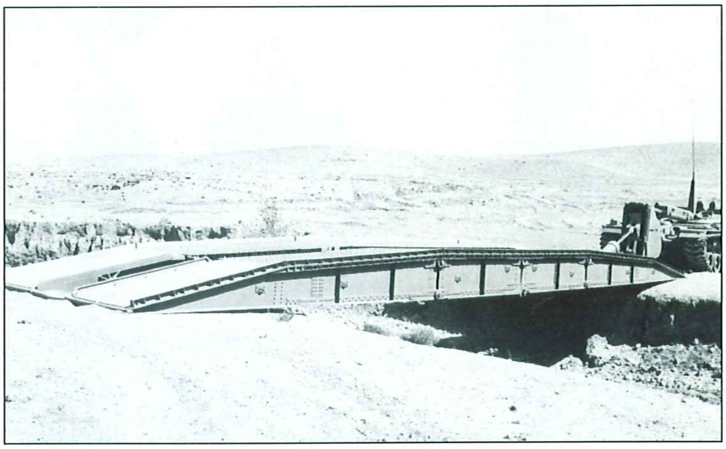




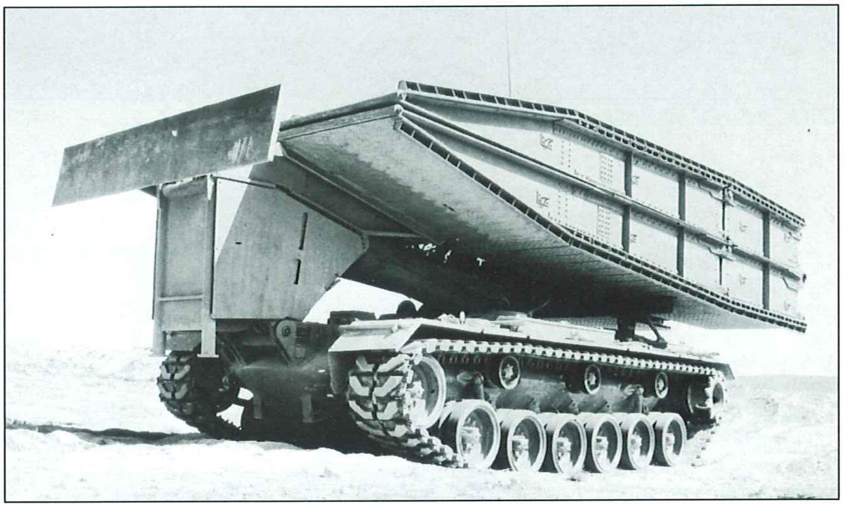
On October 8, 1973, atop the Golan Heights near Buqata, a M50 155mm self-propelled howitzer moves forward to provide fire support against advancing Syrian tank units. In the background is a Centurion Shot tank. (IDF Spokesman)



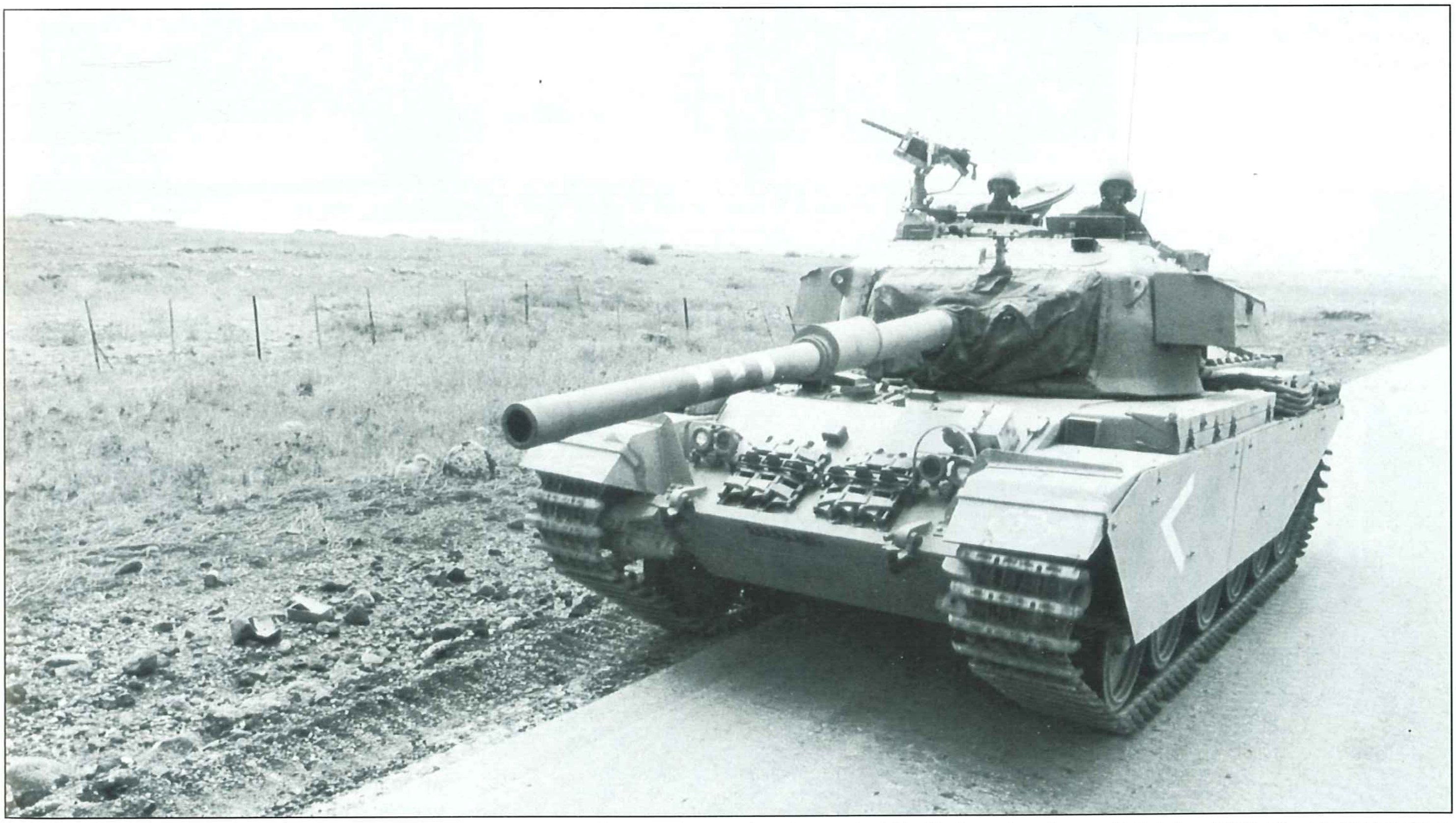
Ironically, the Israeli tank units found that they need combat engineer equipment to surmount their own tank ditches once Israeli forces went over to the counteroffensive. This is a M48 AVLB armored vehicle launched bridge on the Golan Heights in October 1973. (IDF Spokesman)



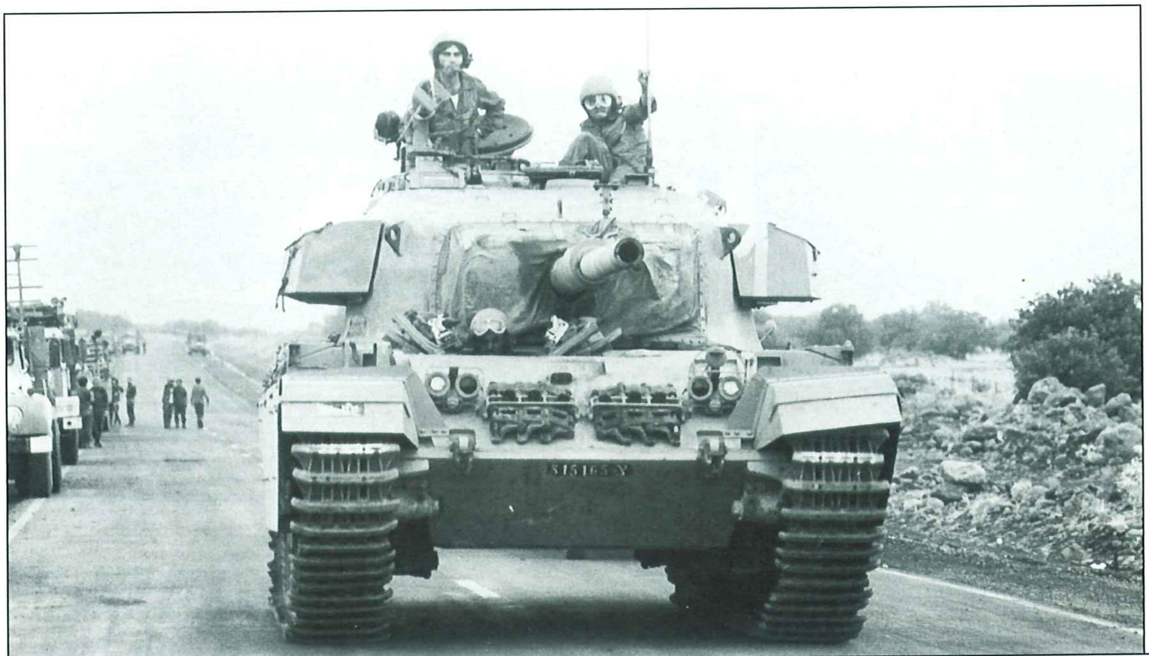
This is a view of a M48 AVLB with the bridge deployed during an exercise shortly before the war. Once the bridge is deployed over the tank ditch, the armored carrier can detach itself. (Israeli Government Press Office)



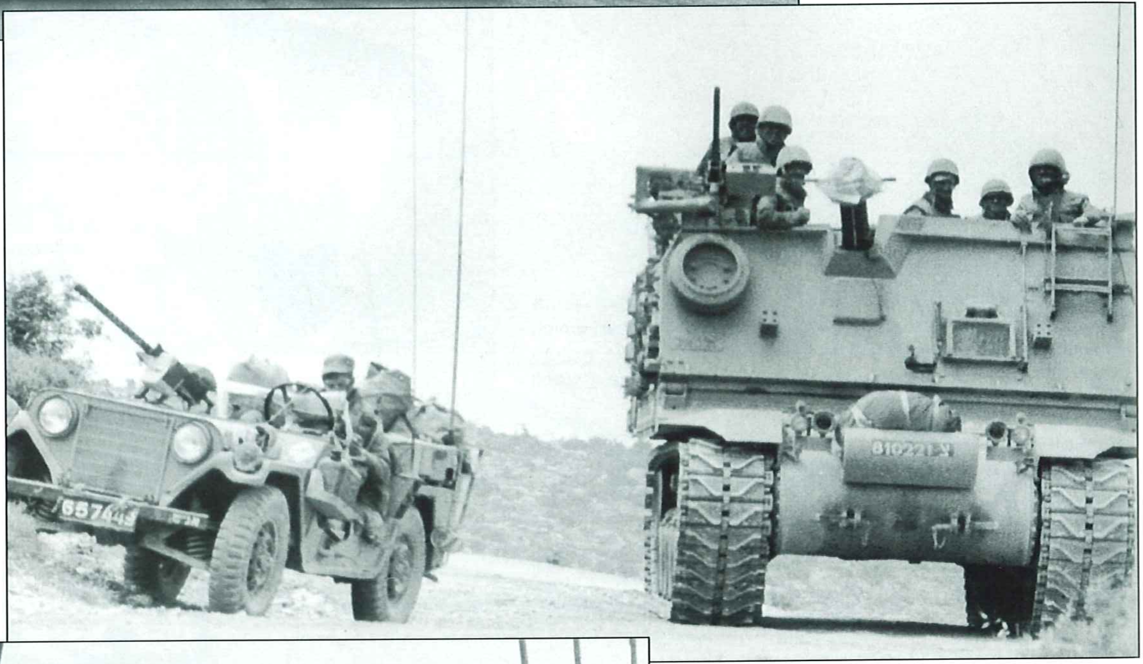
Another view of a M48 AVLB with the bridge recovered. The large device at the front of the bridge array is a pad which is lowered to the ground to permit the vehicle's hydraulic system to get sufficient leverage to open up the scissors bridge. (Israeli Government Press Office)



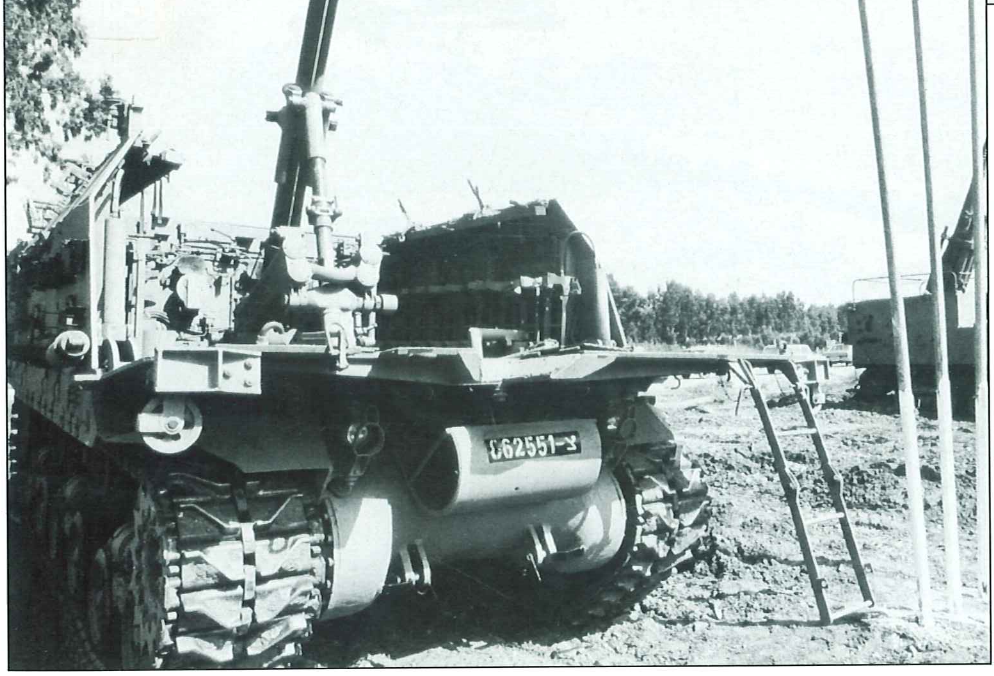
A Centurion Shot of the 7th Armored Brigade moves up to the front hours after the start of the Syrian offensive on 6 October 1973. The Centurion Shot can be distinguished from the earlier Centurion variants by the air cleaner on the rear of the fender. (IDF Spokesman)



A platoon commander's Centurion moves forward towards the Purple Line near Tel Hazeika. Notice the use of US pattern searchlights and night driving lights, part of the Israeli Ordnance Corps retrofit program. The tank is marked as a platoon commander's vehicle by the small Hebrew abbreviation of "Mem-Mem" (for Mefak̬ed Machlaka," or "Platoon Commander"). (IDF Spokesman)

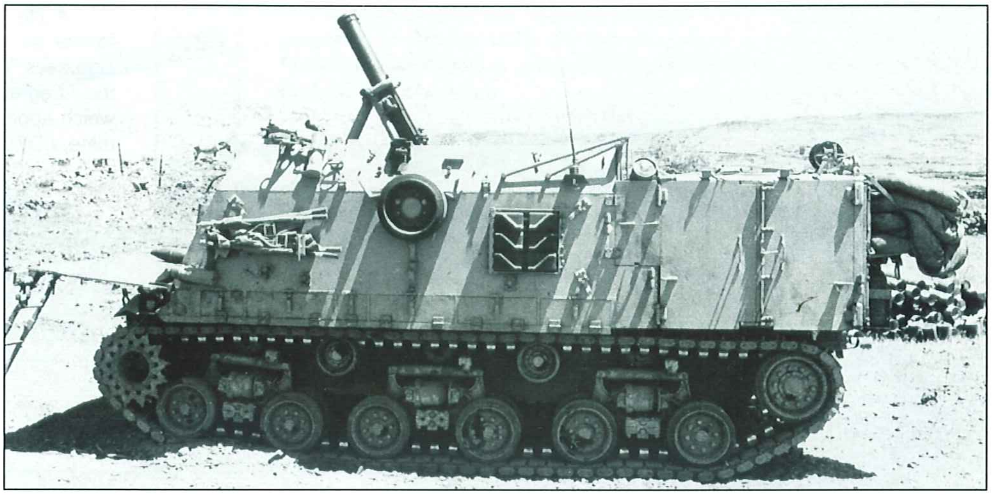


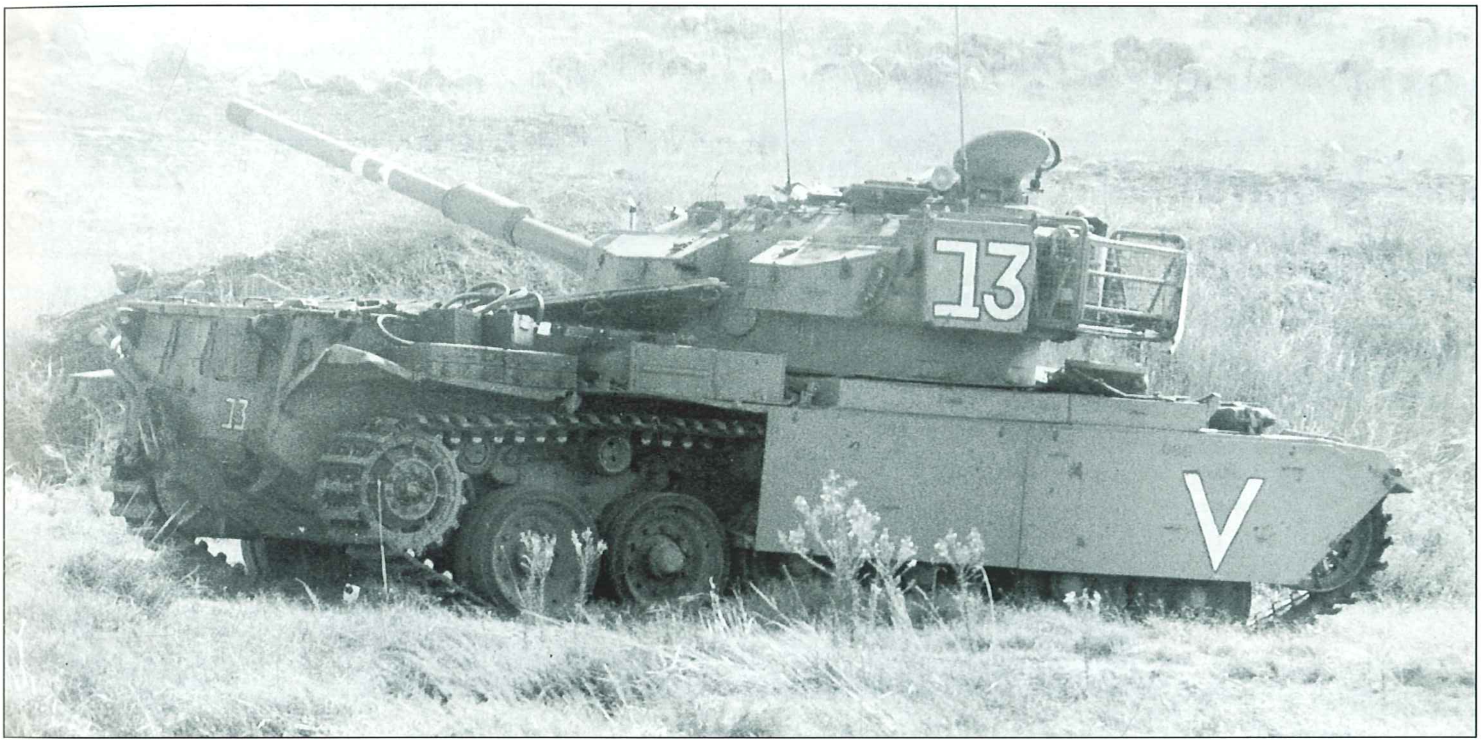
A self-propelled 160mm Soltam mortar moves forward on the Golan front past a M151 jeep. These mortar units could provide fire support, or could be used to provide illumination rounds for tank battalions during night-time battles. Israeli tank units on the Golan were often at a disadvantage in night combat due to the lack of infrared night-fighting equipment. (Israeli Government Press Office)



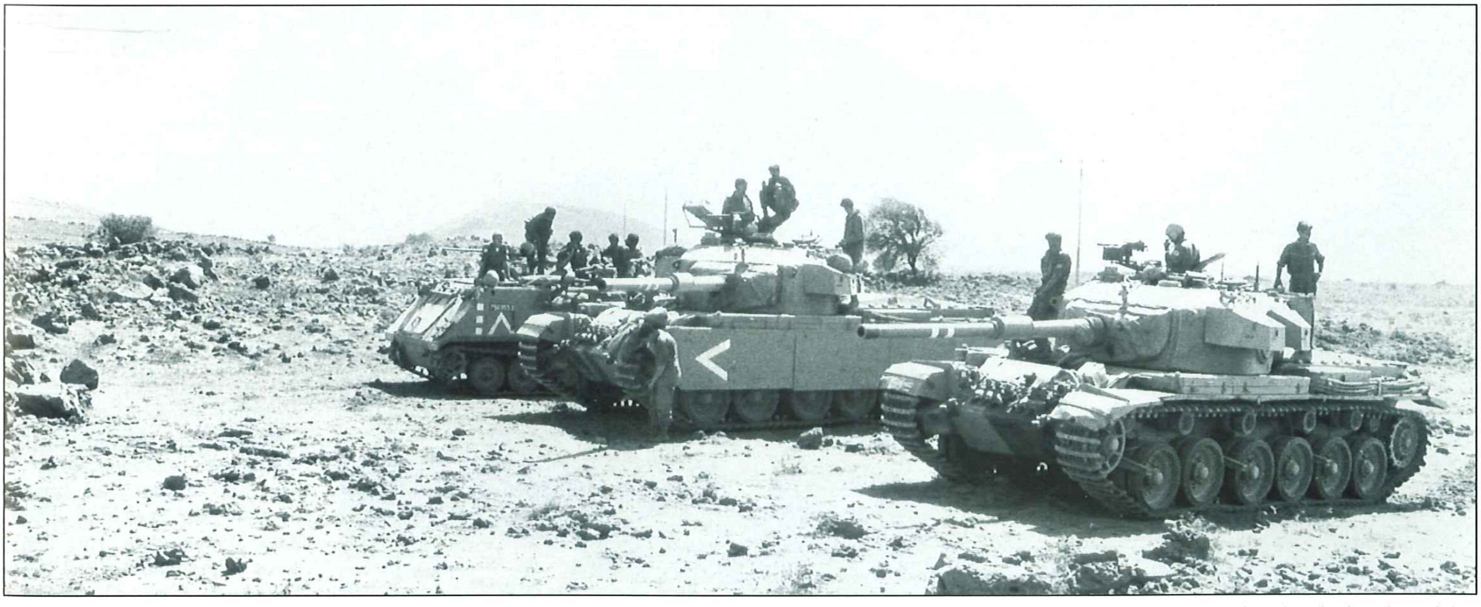
A detailed view of the interior configuration of a 160mm Soltam self-propelled mortar vehicle. The front ramp could be lowered for stowing ammunition in the vehicle. (Israeli Government Press Office)

A good side view of a 160mm self-propelled Soltam mortar vehicle at the base of Mt. Hermon, shortly after the Golani Infantry Brigade successfully recaptured the position from Syrian commandos. Although produced in small numbers, the 160mm self-propelled vehicles were known as extremely reliable close-fire support weapons. (IDF Spokesman)

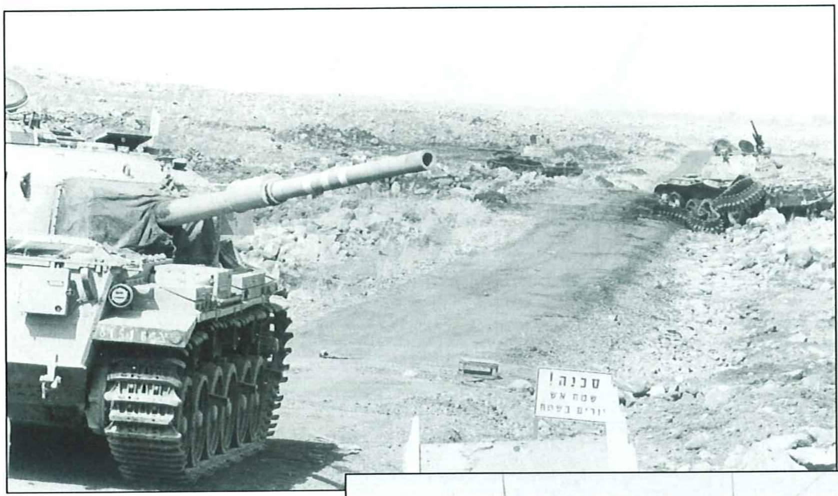




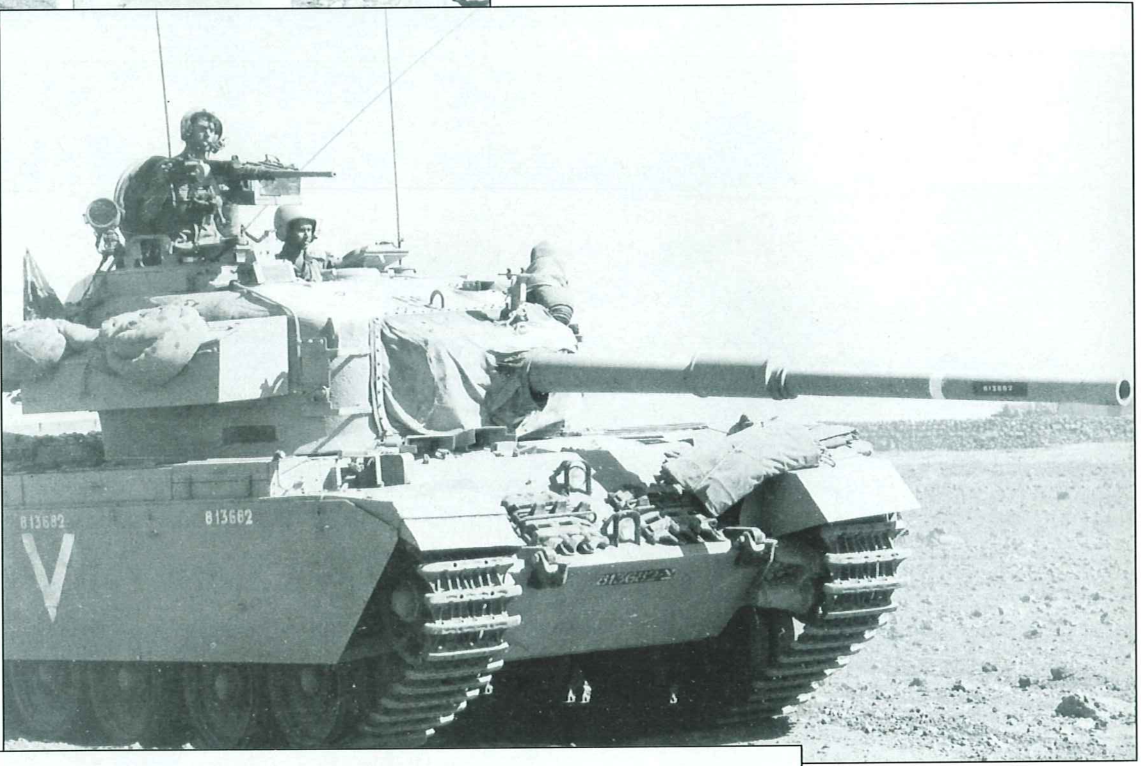
A damaged Centurion Shot, hit by a Malyutka anti-tank guided missile, is delegated to a static defensive role covering the advance of infantrymen up a small hill, near the Booster Ridge during the fighting for the "Valley of Tears" north of Kuneitra. (IDF Archives)



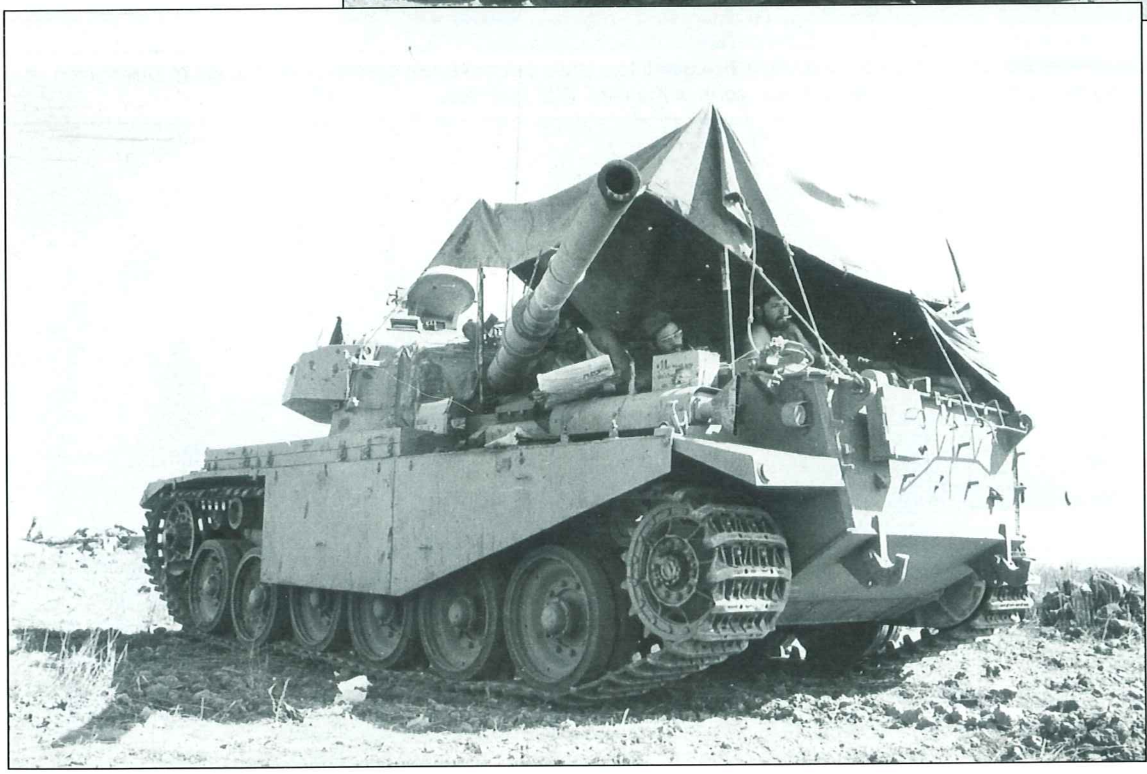
A platoon from Col. Uri Orr's 679th Armored Brigade on 9 October 1973. This brigade was involved in the defense of Nafekh after the decimation of the 188th Barak Brigade by the initial waves of Syrian tanks. Seen here are two of the brigade's Centurion Shot tanks, and a M113 APC. (IDF Spokesman)



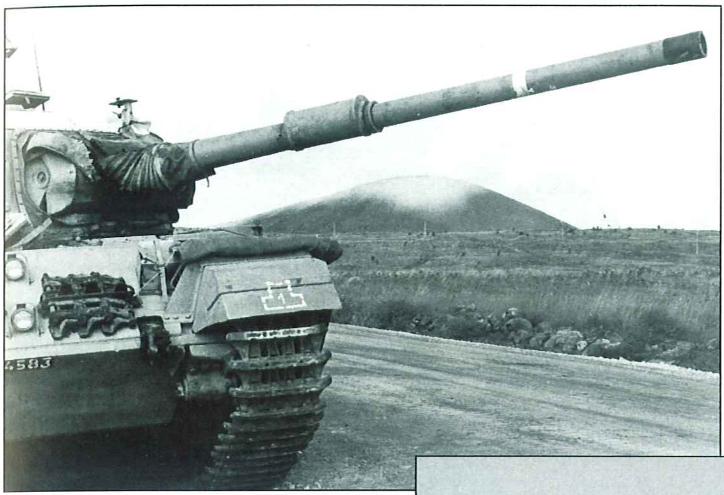
A 7th Armored Brigade Centurion Shot advances past a former training ground atop the Golan Heights. Ironically, the sign says "DANGER: Firing Range. Live Firing in the Area". In the foreground are two destroyed Syrian T-55s, the nearer of which appears to have had its tracks blown off by an anti-tank mine. (IDF Archives)



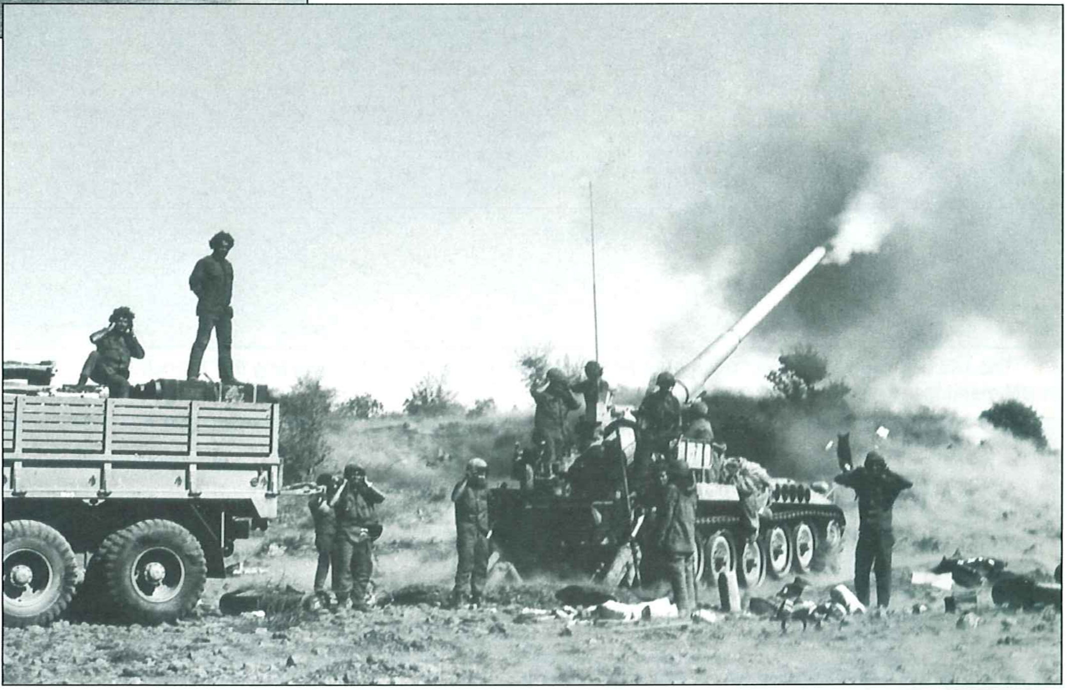
A Centurion advances on the Golan Heights during the 1973 fighting. The commander's cupola has been modified to carry a M2 .50 cal heavy machine gun on a pintle mounting. (IDF Archives)



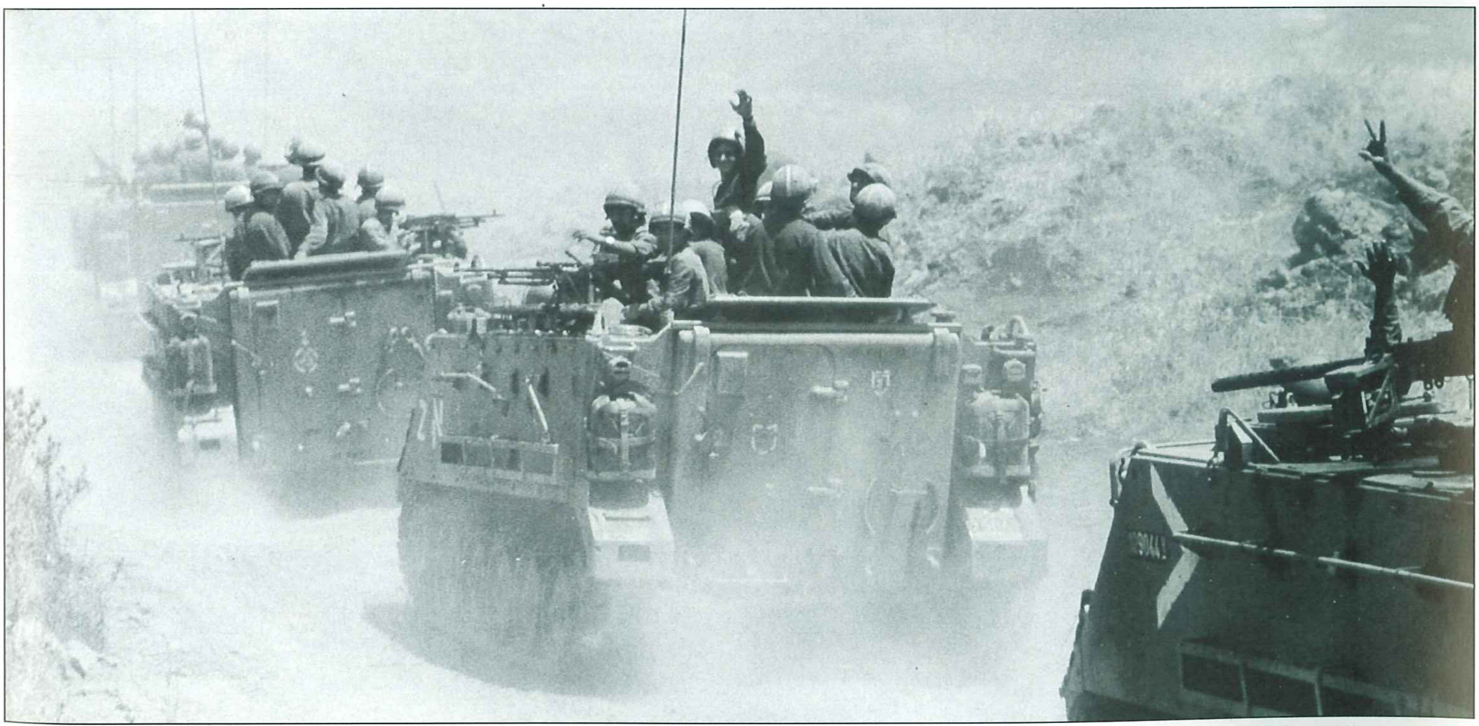
A crew of Orthodox seminary students crewing a Centurion near the Mutzav 107 defensive positions take a breather under a hastily erected tarp over the engine deck of their tank. This angle gives a good view of the older Meteor-engined Centurions, still in use in the 1973 fighting. (IDF Spokesman)



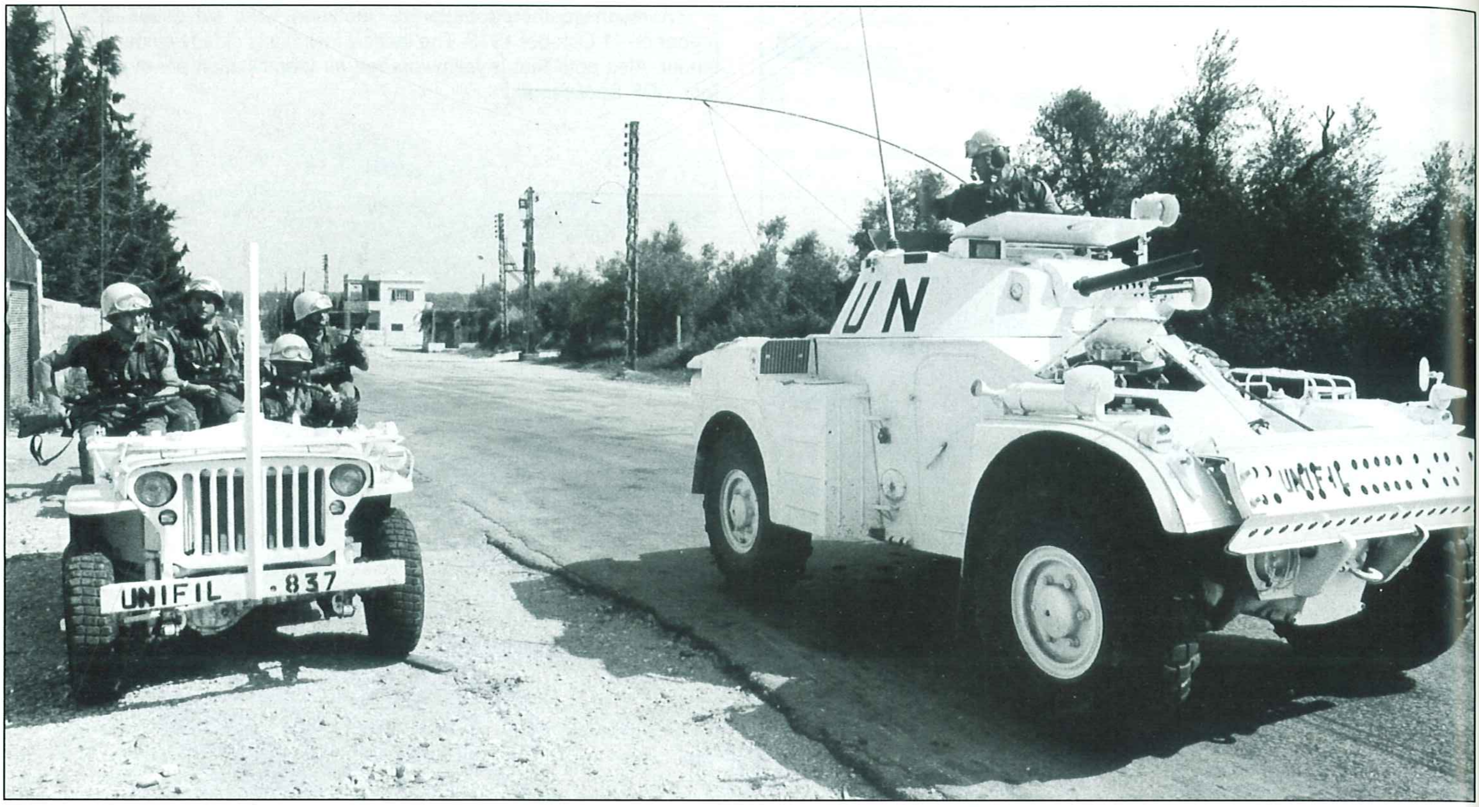
A much-weathered battered Centurion Shot advances into Syrian proper on 11 October 1973. The tactical insignia is clearly evident on the left fender. Also note that a yellow/orange air identification panel is tied to the roof. (IDF Spokesman)



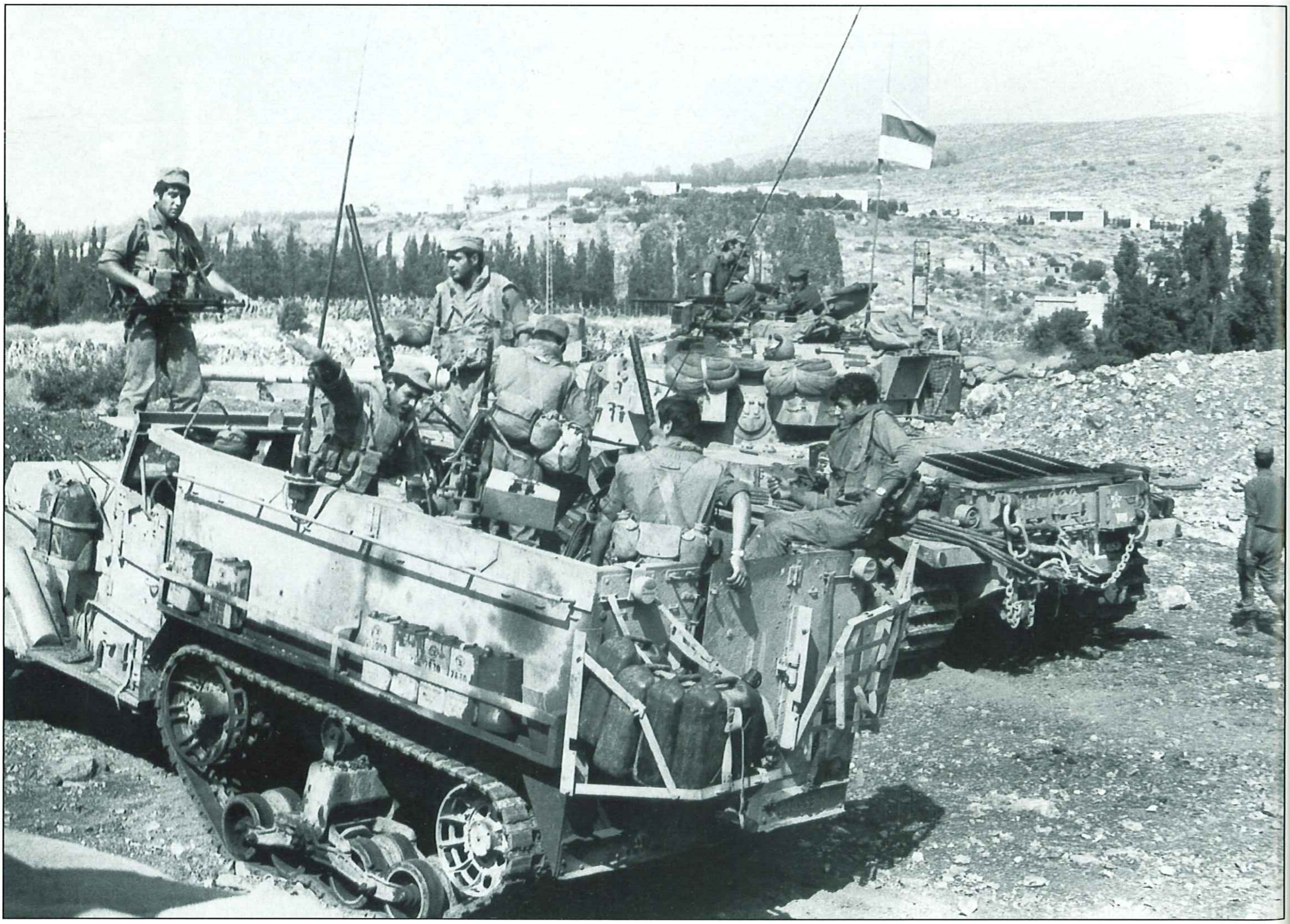
The most potent long-range firepower available to the Israel forces on the Golan Heights were the M107 175mm guns seen here during the fighting on 11 October 1973. (Israeli Government Press Office)



Israel's successful repulse of the Syrian attack on the Purple Line, followed by their drive on Damascus and the Egyptian withdrawal from the war convinced the Syrians to sue for peace. As on the Sinai front, the United Nations brokered a cease-fire and a later force disengagement. These Israeli M113A1 APCs are seen withdrawing from Tel El Shams as part of the Phase 2 disengagement on 18 June 1974. (United Nations/Y. Nagata)

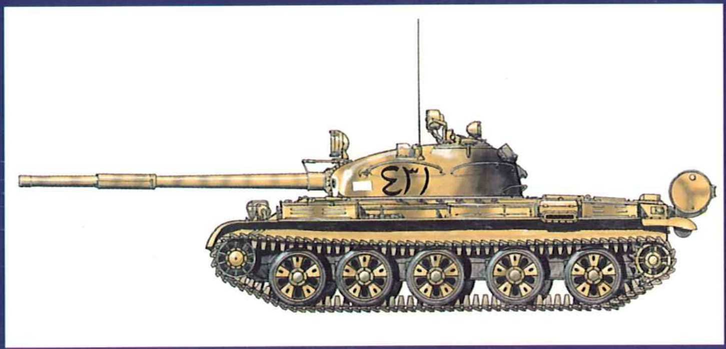


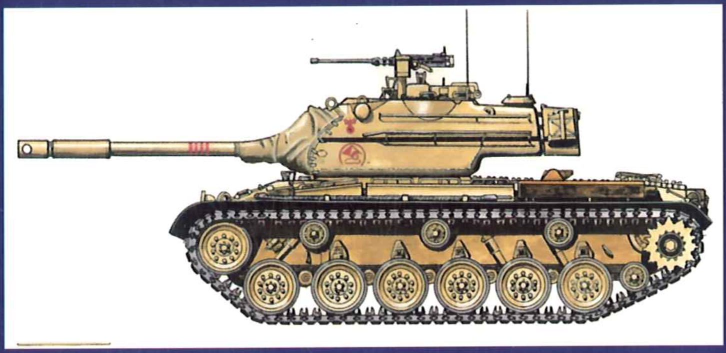
The UN disengagement was monitored by several foreign contingents, including this French UNIFIL mobile team with a Panhard AML-60 armored car in UN markings. (United Nations/Y. Nagata)

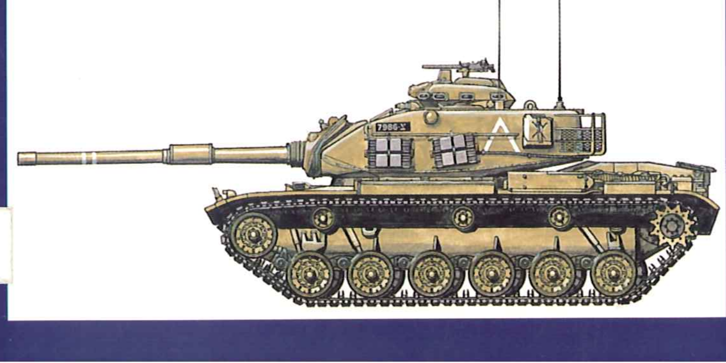


Israeli forces prepare for the final pull-out. In the foreground is an old and battered M3 half-track heavily stowed and armed with at least one .50 cal heavy machine gun and two .30 cal machine guns. In the background is a Centurion Shot. (United Nations/Y. Nagata)

TANK BATTLES OF THE MID-EAST WARS







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